

A detailed topographic map of the Rock Creek Basin in Montana. The map shows the main Rock Creek and its various forks, including the Salmon Fork, Middle Fork, and Trail Fork. It also depicts surrounding geographical features like the Helena Mountains and the Salmon River. Towns such as Helena, Bozeman, and Deer Lodge are marked. The map is oriented with North at the top. A central text box is overlaid on the map.

FOR THE SAKE OF THE CREEK

Land and Water Use in the Rock Creek Basin
& The Effort to Preserve the Resource

Prepared for the Rock Creek Advisory Council
by

The Montana Watercourse
Bozeman, Montana

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Prepared for the Rock Creek Advisory Council
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The Montana Watercourse
Bozeman, Montana

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Cover Map of the Territory of Montana 1865
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FOREWORD

Rock Creek's famed natural resources—its fisheries and forests, minerals and ranch lands, wildlife and open spaces—have inspired many efforts toward cooperative management. But until now, those efforts had never been documented in a single reference handbook. In June 1990, the Rock Creek Advisory Council commissioned the Montana Watercourse, a non-profit water education organization, to research and analyze agreements among state and federal resource management agencies and the citizens who use, enjoy and care for Rock Creek. The decisions and agreements presented in the following pages determine how the lands and waters of the Rock Creek drainage will be managed in years to come. This report is intended above all as a tool to help citizens contribute meaningfully to management decisions.

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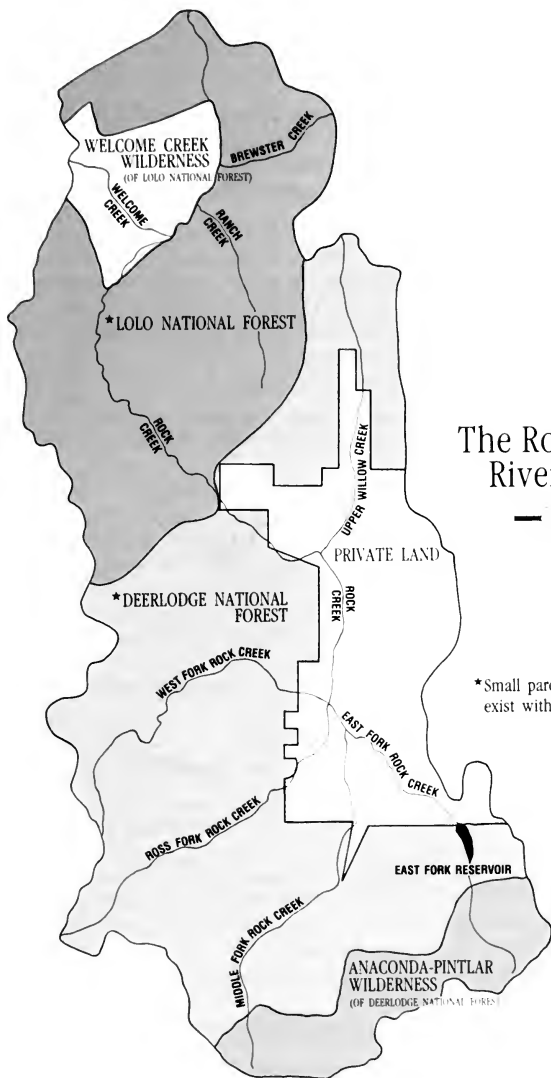
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The Rock Creek River Basin

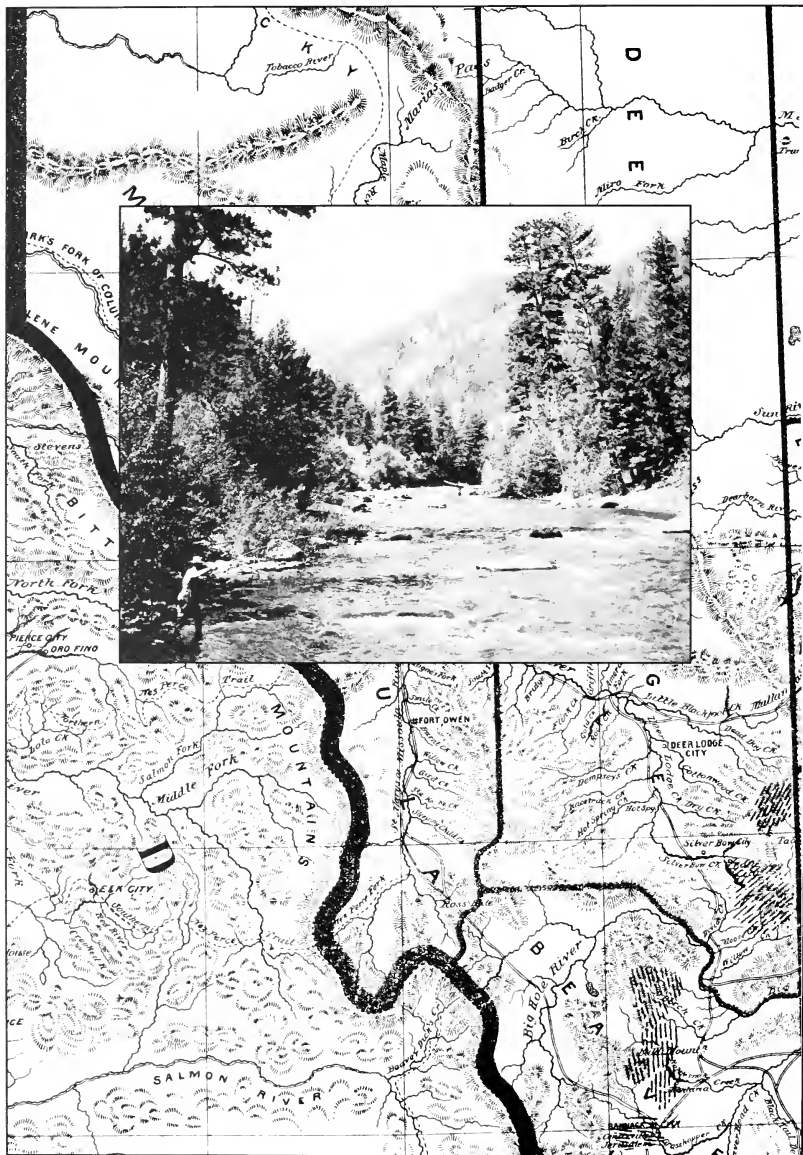
*Small parcels of Private Land exist within National Forests.

TIMELINE

- 1872:** — The General Mining Law is enacted, establishing procedures for staking and maintaining claims and for patenting claims.
- 1935:** — Reservoir is constructed on the East Fork of Rock Creek.
- 1948:** — Logging starts in the Rock Creek drainage on the Deerlodge National Forest.
- 1959:** — Rock Creek is designated a blue ribbon trout stream.
- 1960:** — Logging starts in the Rock Creek drainage on the Lolo National Forest.
- 1961:** — The Montana Fish and Game Department begins phasing out the Rock Creek trout stocking program.
- 1964:** — The Wilderness Act becomes law, protecting the headwaters of Rock Creek as part of the Anaconda- Pintlar Wilderness.
- 1967:** — The first ranch is subdivided in the Rock Creek canyon.
- 1969:** — Rock Creek receives Murphy Right status for protection of instream flows.
— The Montana Sierra Club Group and the West Slope Chapter of Trout Unlimited form in Missoula.
- 1970:** — The National Environmental Policy Act (NEPA) becomes law.
- 1971:** — The Montana Sierra Club Group and the West Slope Chapter of Trout Unlimited file an appeal of timber sales planned for the Rock Creek drainage.
— The Regional Forester, USFS, orders a moratorium on timber sales in the drainage.
- 1972:** — The Rock Creek Advisory Committee is chartered by the U.S. Department of Agriculture to advise the Forest Service on Rock Creek management.
- 1973:** — The Montana Water Use Act becomes law.
— The Rock Creek Advisory Committee and the Forest Service agree to water quality monitoring standards for Rock Creek.
- 1976:** — The Rock Creek Advisory Committee disbands.
- 1978:** — The Welcome Creek Wilderness Area is created with passage of the Endangered American Wilderness Act.
— Environmental Impact Statement is completed for Upper Rock Creek; moratorium on timber sales in the Upper Rock Creek drainage is lifted.
- 1979:** — The Montana Fish, Wildlife and Parks Department (formerly Fish and Game) tightens creel limits and tackle restrictions and institutes catch-and-release only on one portion of Rock Creek to reverse decline in trout populations.
- 1983:** — The Regional Forester of the Forest Service lifts the moratorium on timber sales in the remainder of Rock Creek drainage.
- 1984:** — The Montana Water Court issues a Temporary Preliminary Water Rights Decree for Rock Creek.
- 1985:** — The Deerlodge National Forest announces timber sales in the drainage amounting to 4,000 acres of clearcut.
— Citizens protest lack of monitoring on the Deerlodge.
— The Rock Creek Advisory Committee reconvenes informally.

Timeline

- Deerlodge and Lolo officials agree to resume and improve monitoring in accordance with the 1973 agreement.
 - The Rock Creek Advisory Council is created to administer a \$1.65 million trust fund for the conservation of Rock Creek.
 - 1986:** — The Deerlodge and Lolo Forest Plans include a joint chapter on Rock Creek, incorporating conservation and water quality monitoring standards in accordance with the 1973 agreement.
 - The Rock Creek Advisory Council buys Spring Creek Woods.
 - 1989:** — Plans for the Bagdad Mine are withdrawn after a year of environmental impact investigations in accordance with the 1973 agreement on water quality standards.
 - 1990:** — The Rock Creek Advisory Council buys the Handley Ranch.
 - The Lolo National Forest tightens float-fishing regulations and re-issues commercial outfitters permits.
-



INTRODUCTION

Conservation and Diplomacy

Saving a Montana Treasure

A fisherman thigh-deep in sparkling waters waves his rod against a backdrop of rustling cottonwoods. A bighorn sheep feeds placidly in a meadow beneath a craggy bluff. A boy in rubber boots shoos a herd of cattle home at sunset, past the tumbled remains of a miner's shack. These are the kinds of memories a visitor carries away from Rock Creek, a jewel of a Montana stream that seems to defy the passage of time. But it took more than ancient oceans and earthquakes to sculpt this pristine river valley. Rock Creek remains a productive river and scenic paradise only through the combined efforts of vigilant citizens, responsible landowners and government agencies willing to work with the public.

Montana has long recognized the value of Rock Creek, naming it one of only seven "blue ribbon," world-class fisheries.¹ The creek tumbles north more than 50 miles from headwaters in the Anaconda Pintlar Wilderness on the Continental Divide to meet the Clark Fork of the Columbia River 20 miles east of Missoula.² Cradled between the Sapphire Mountains to the west and the John Long Mountains and Flint Creek Valley to the east, its crystal waters abound with rainbow, brook, cut-throat and lunger brown trout, Dolly Varden and an occasional whitefish. Together with five main tributaries, Rock Creek drains three-quarters of a million acres of land and provides some 280 miles of fishable streams.

Fly-fishermen from all over the country find their way here, wending along a narrow dirt road up a steep canyon in search of the ideal pool or riffle. (Former Federal Reserve Board Chairman Paul Volcker, visiting Missoula in 1990 to deliver a speech, admitted to a standing-room-only crowd at the University of Montana that he'd timed his trip to coincide with the salmon-fly hatch on Rock Creek. The comment earned him his loudest ovation of the evening.) Rock Creek is all the more prized because it offers magnificent fishing, but rewards only the skillful with consistent success.

The woods, as well as the water, hold remarkable wildlife attractions. Hunters stalk elk and deer through the fir and lodgepole forests of

the basin. Ponderosa pines shade the creek banks and larches blaze yellow in autumn, when the bighorn sheep come down to the creek to graze. Bird watchers spot endangered bald eagles and even an occasional peregrine falcon winging through the canyon on mild winter days.³ In April, the valley is alive with yellow-and-orange western tangers.

But sportsmen and naturalists aren't the only ones with an interest in this river valley. For more than a hundred years, people have depended on Rock Creek for their livelihoods. Many of the early explorers passed through with little lasting impact: Native American hunting parties;⁴ Lewis and Clark, who called it the "Rocky Fork of the Clark Fork;" the miner Jim Jones who in 1878 escaped vengeful Nez Perce Indians that murdered three of his partners⁵; and a year later, Andrew Garcia who came up the creek and over the Sapphire Mountains with his Nez Perce wife, leaving on a trail he called a "hell-roarer and fit only for an Injun."⁶

In the late 1880s, homesteaders followed the trappers and miners, settling to stay for generations.⁷ Together, these frontiersmen built sluices and stills, fences and bridges, sawmills and watchtowers. They put out forest fires. They cut trees to clear land, to build homes and to sell. They diverted water for irrigation and mining. They grazed cattle and hunted moose and deer. Inevitably, they changed the landscape they loved—and many did love it. "Those pioneers could have stayed where they were, in farming land that was open and flat with a chance at the sun all day long," a long-time resident told Rock Creek historian Darlene Olson.⁸ "Instead, they took a narrow valley, stingy with daylight and overly generous with rocks, but we all felt the magic that Rock Creek held. . . ."

A century later, the tension between scenic preservation and commercial use shapes the course of Rock Creek history. The U.S. Forest Service—which manages 80 percent of the land drained by the creek—builds logging roads and sells timber on a scale the early settlers could not have imagined.⁹ Power lines first strung in the 1950s carry electricity

Conservation and Diplomacy

to Rock Creek homes, and steel transmission towers raised in 1985 carry high tension wires across the mouth of the canyon. Small ranches are being subdivided for modern houses, bringing more cars, power lines and potential sewage problems to the canyon. And gold miners await only higher prices to swing their claims into full production.

The threat of all this development degrading Rock Creek remains real. The upper basin is broad and accessible, with soils that erode easily when logged and hundreds of tiny tributaries that may be trampled by cattle, fouled by mines or silted by timber cutting. The popular lower canyon is susceptible to overfishing and pollution from cars and campers raising dust in a perpetual summertime parade. And because it remains unzoned at the edge of a growing city, real estate development already has changed the character of the lower canyon from purely country to semi-suburban. As elsewhere, everyone accuses someone else of degrading the environment: loggers blame miners who blame cattlemen who blame real estate developers. Only one area in the lower basin, the Welcome Creek Wilderness, has been declared forever off-limits to commercial activity.

But nearly two decades ago, the Forest Service answered public criticism about its logging and road-building plans by convening a committee of all the loudest critics. Conservationists whose first aim was to stop the logging sat down across a table from people concerned about profits and jobs in

mining, logging and ranching. Also represented on this fractious committee were the University of Montana, the state Fish and Game Department and other public agencies. During three years of confrontation, compromise and often tedious committee work the group forged agreements that put a premium on the quality of water, the fisheries and the surrounding scenic areas. Most important, the Forest Service agreed that before it opens any of its vast Rock Creek lands to logging, roading, grazing or campsites, it must test the water—and continue to do so during and after the activity. When the quality of water is found to be suffering, the activity must stop and the damage must be repaired.

The agreement doesn't keep people from making a living in the Rock Creek basin; it only seeks to ensure that the creek and its surroundings will remain a pleasure to fish, float or simply behold. By itself, the agreement is no guarantee. A series of legal challenges, public meetings, new citizens committees and pacts have refined, modernized and strengthened the standards for preserving Rock Creek. The state, through the Rock Creek Advisory Council, now administers a \$1.5 million conservation trust fund for the drainage.¹⁰ Sportsmen and conservationists, residents and state wildlife officials all continue to cooperate with the Forest Service on issues ranging from elk habitat to residential sanitation, mining, grazing and, of course, logging. In this way, they plan to keep Rock Creek a treasure for generations to come.

ENDNOTES

1. In 1959, a committee composed of representatives of Montana State University, the Bureau of Sport Fisheries and Wildlife and the Montana Fish and Game Department classified the entire length of Rock Creek, from mainstem headwaters to mouth, as a blue ribbon trout stream. The committee rated streams based on their ability to produce fish, their availability to fishermen, the aesthetic value and the amount of recreational use they received. As a blue ribbon fishery, the highest classification, Rock Creek is to be protected from habitat destruction.
2. The four forks of Rock Creek—the Ross', East, West and Middle Forks—meet just above the Skalkaho Bridge in the Deerledge Forest.
3. See Lolo National Forest's Biological Evaluation for the proposed Bagdad Mine, prepared by Mike Hillis, wildlife biologist. See also the U.S. Fish & Wildlife Service, Department of Interior, April 26, 1988, memo evaluating the potential effect of the Bagdad Mine on Peregrine falcons and bald eagles.
4. *Missoulitan*, May 31, 1964, article by U.S. Forest Service Ranger Carl Siria. Indian artifacts have been found throughout the drainage. Mounds found on East Quigg Peak, the highest peak in the Sapphires, are thought to be Indian relics. Some 40 miles upstream of the mouth of Rock Creek is Squaw Rock, a multicolored ledge where, according to legend, a young squaw plunged to her death. More than 100 bison skulls were found on a flat near the mouth of Little Hogback Creek, a Rock Creek tributary; the bison are thought to have perished in deep snow after taking refuge in the canyon from Indian hunters.
5. Andrew Garcia, *Tough Trip Through Paradise, 1878-1879*, pp. 336-345.
6. *Ibid.*, p. 360.
7. *Missoulitan*, May 31, 1964, op. cit. The Wyman and Rodda families were the first permanent settlers, arriving in 1887 to graze livestock. At the lower end, Charley Pomeroy was the first to settle, in 1883.
8. Darlene Olson, *Up The Creek: History of Early Settlers on Rock Creek, Bonita & Quigley*, p. vii.
9. Lolo National Forest Plan, 1986. Of 570,670 acres within the Rock Creek watershed, 458,935 (80 percent) are managed by the U.S. Forest Service, 12,520 (2 percent) by the Bureau of Land Management, 4,890 (1 percent) by the State of Montana, and 94,325 (17 percent) belong to private owners.
10. The fund, which started at \$1.65 million, has fluctuated to as high as \$2 million, and amounted to \$1.5 million in January of 1991.



"Fisher Jack" Place, Ranger Nickel left, Jack, center, Lynet, right; circa 1920.

CHAPTER ONE

"To Protect and Improve"

Logs, Roads and Wilderness

Clearcuts and Conservationists—The Debate Begins

It is sometimes easy to forget that the baby boomers did not invent conservation. By the end of the 19th century, Americans already were realizing that their country's natural resources, however plentiful, were finite. We were overworking fertile farms and grazing lands. On our public lands which, since 1812, had been managed by a General Land Office, we were mining wastefully, dirtying rivers and clearing vast forests.¹ But with the growing conservation consciousness of the new century, the government created National Forests, National Parks, National Monuments and wildlife refuges to afford lasting protection to chosen lands.

The Forest Service, created in 1905, was given, among other treasures, custody of a big swatch of land in western Montana called the Rock Creek drainage.² The agency was expected to "protect and improve" all of its lands, even while providing "a continuous supply of timber."³ Exactly what that means has been subject to interpretation over the years. Timber sales in the Rock Creek drainage have been controversial for at least two decades.

Long before serious logging began, though, foresters already were changing the face of Rock Creek. Natural fires used to sweep the basin every 10 to 15 summers,⁴ but by the late 1800s, the Forest Service manned ten fire lookouts supplied by horses and mules and scattered across the high peaks overlooking the drainage. As fire suppression grew more sophisticated, the once open Ponderosa forests of the Rock Creek area grew dense with brush and such shade-tolerant species as Douglas fir.⁵

The government first became a major employer in the Rock Creek drainage during the 1930s, when various New Deal programs helped develop campsites and improve the roads alongside the creek. But it wasn't until the 1950s that the timber harvest began in earnest. Equipment developed after World War II made the rugged country of western Montana accessible to loggers for the first time. The post-war housing boom also created a big demand for timber.⁶ People came to depend on the government to provide jobs in-

directly through companies that log and mill trees grown on Forest Service land.

Many outdoor enthusiasts who saw the results of commodity-oriented management during the 1960s began to wonder whether the Forest Service had forgotten its custodial role in western Montana.⁷ The concept of sustained yield still officially guided Forest Service timber sales. But even if timber production could be sustained on the mountainsides, such groups as the Western Montana Fish and Game Association found it incompatible in many cases with scenic hiking, hunting and fishing. Membership in the association swelled to 7,000 during the timber and wilderness controversies of the 1960s.⁸ This group, and others like it, would play a pivotal role in efforts to preserve Rock Creek.

From 1948 through 1969, more than 10,000 acres—about 87 million board feet of timber—were cut in the Rock Creek drainage on its two National Forests, the Lolo and the Deerlodge.⁹ The small wooden bridge connecting Rock Creek Road to the highway during this time wouldn't hold logging trucks. But timber was hauled out the back door—over the ridges to the east and west.¹⁰ It wasn't long before hikers, hunters and state officials began complaining about denuded slopes; clearcutting was creeping down Kitchen Gulch and Gilbert Creek on either side of spectacular Rock Creek canyon.

The Montana Fish and Game Department (now called the Montana Department of Fish, Wildlife and Parks) vowed in 1968 to fight Forest Service road building in key elk areas of the Rock Creek drainage, including calving grounds and both winter and summer ranges.¹¹ The following year, the Montana Sierra Club Group formed in Missoula specifically to work for protection of Rock Creek, and soon after, Trout Unlimited formed its West Slope chapter in Missoula.

Rock Creek was not the only battle front forming in western Montana during the 1960s. Citizens of the Bitterroot Valley, to the west, were also organizing to identify and promote conservation interests. There, too, the concern was intensified logging on national forest lands.

At Rock Creek, conservationists and sportsmen were alarmed by Forest Service plans to cut at least 60 million board feet of timber¹² (about 7,500 acres of clearcut) throughout the drainage during the early 1970s. This was to be made practical by a new bridge from the interstate highway across the Clark Fork at the mouth of Rock Creek.¹³ In addition, the average size of clearcuts on the Deerlodge leapt to more than 57 acres in 1971, from an average of about 34 acres during the 1960s. While small clearcuts provided potentially healthy ecological "margins" for big game—with forage and timber shelter in close proximity—large clearcuts were considered destructive of wildlife habitat. As the conservationists saw it, only aggressive community organizing could halt disastrous timber sales along Rock Creek.

"Those were the days when the Forest Service kind of did what they pleased, without a lot of public scrutiny," recalls Dr. Gary Eudaily of the Western Montana Fish and Game Association.¹⁴ In the summer of 1969, the Sierra Club, Trout Unlimited and the Environmentalists, a campus group, asked the Lolo National Forest to send a representative to a public meeting in the Liberal Arts building on the University of Montana campus. The conservationists wanted foresters to explain plans for a timber sale on Kitchen Gulch, near the mouth of Rock Creek. They armed themselves with printed questions and, as Robert Bassett, a founding member of the Montana Sierra Club Group puts it, "humiliated" the Lolo Forest spokesman. The Forest Service, at least in this region, had never seen anything like it.

"They fried him," says Lolo Forest Supervisor Orville Daniels, then deputy supervisor. "It was the first militancy of that sort used to embarrass us. Our man was in no way prepared to deal with the attacking nature of that meeting. This was the first effort by environmentalists to organize into an effective force. It really preceded the big battles on the Bitterroot."¹⁵

Bassett, who owned the Elkhorn Guest Ranch in Rock Creek canyon, recalls the Forest Service as "extraordinarily defensive. They were not used to being questioned. It was not really their fault; it reflected a changing era."

It was an era of growing environmental concern nationwide, spurred by such events as the publication of Rachel Carson's "The Silent Spring" in 1962; the oil spill off Santa Barbara that coated 13 miles of California beaches in 1969; the

discovery of huge amounts of DDT in salmon and other foods; the first smog alerts in Los Angeles, when people were warned not to breathe too deeply; the anaerobic "death" of Lake Erie and the 1969 fire on the waste-filled Cuyahoga River. These events prompted environmental activism on a scale never known before, and led in turn to passage of the Wilderness Act, creation of the National Wild and Scenic Rivers System and even an Army Corps of Engineers environmental advisory board. The decade of environmental activism climaxed with the first Earth Day, celebrated in Missoula and across the nation in April, 1970.

At the same time, the National Environmental Policy Act of 1969 (NEPA) was working its way through Congress, requiring federal planners to prepare an Environmental Impact Statement before undertaking major actions that might "significantly affect the quality of the human environment." When NEPA became law on the first of January, 1970, nobody, neither the Forest Service nor the lawyers at the University of Montana, knew quite what constituted a "major action." But they would soon learn.¹⁶

Conservationists weren't the only ones organizing. Everett Miller, a Philipsburg sawyer, miner and outfitter, feared the new-found environmental activism would bust his region as surely as \$3-a-barrel oil would wreck Texas. "Natural resources built the state of Montana," says Miller, whose grandfather came west in 1843. "Without the natural resources we have nothing."¹⁷ Miller, who helped found Granite County K.E.E.P. (the Committee for Economic and Environmental Protection) bitterly remembers the first tremors along a political fault-line that was to split the people interested in the Rock Creek watershed. Miller had worked at a local sawmill that closed in the 1960s, and felt any restriction on logging would further erode jobs in Granite County. The conservationists protesting in Missoula in the late 1960s struck him as a bunch of misguided, elitist newcomers exerting "outside influence." In 1970, Miller's angry group of Philipsburg citizens brought Missoula conservationists to the Granite County courthouse for a public meeting, seated them, ironically, in the jury box,¹⁸ and berated them on the subject of logging and blue collar jobs. The Philipsburg judgment: "They didn't understand logging or mining or anything else," says Miller.

In years to come, the antagonistic constituencies of Philipsburg and Missoula would affect the

way the Deerlodge and Lolo forests applied new rules. In Philipsburg, the Deerlodge Forest district headquarters governing much of Rock Creek's upper basin responded to a community dependent on logging and mining jobs. In Missoula, the Lolo Forest district headquarters governing lands in the Rock Creek canyon responded to university scientists and environmental activists.

Already, the *Missoulian* newspaper was becoming a forum for the environmental interests of its readers. In March of 1970, it published a series of articles that helped arouse opposition to Forest Service logging plans for the Rock Creek drainage.¹⁹ In these, Lolo Forest Supervisor Jack Large called for public participation in planning but also insisted timber harvests could continue along Rock Creek without water quality studies. The *Missoulian* then published a photograph of Sierra Club member Robert Bassett's hand coated with oil leaking from cans left by logging trucks near Rock Creek. When the Missoula District of the Lolo National Forest held what it called a public meeting, *Missoulian* reporter Dale Burk wrote that participants were selected by Forest Service invitation only.

In other articles, the Sierra Club and the Environmentalists demanded water quality studies and at least a partial moratorium on logging. The West Slope Chapter of Trout Unlimited called Rock Creek the smallest, most vulnerable and aesthetically finest of Montana's seven blue ribbon fishing streams. The Montana Wildlife Federation said recreational use should take precedence over commodity extraction. And finally, Frank H. Dunkle, director of the Montana Fish and Game Department, was quoted in support of a logging moratorium until citizens could help plan management that would preserve good water, fishing and hunting. By contrast, *The Philipsburg Mail* defended the timber cutting plans, reflecting the concerns of the majority of more than 2,000 Granite County citizens.

Just as Missoula opposed Philipsburg in the early 1970s, the Montana Fish and Game Department often clashed with the Forest Service. While the Forest Service controls 80 percent of the land in the drainage, the state Department of Fish, Wildlife and Parks remains responsible for the fish and wildlife that dwell there. State officials worried that elk, deer and a dwindling population of big-horn sheep in the Rock Creek drainage would be hurt by new logging roads. They were also, of

course, concerned about the fish in their blue ribbon trout stream. State officials believed that logging planned for the drainage might pollute or reduce the amount of water in Rock Creek, and that improved roads and Forest Service campgrounds would attract too many people to fish the creek.

The idea that land should be managed according to natural boundaries, such as watersheds, rather than arbitrary bureaucratic jurisdictions, was gaining currency and Montana wildlife experts were among those who vigorously promoted it. Fish and Game officials met with representatives of both national forests in March of 1970 and proposed coordinated planning for the Rock Creek drainage as a whole. The Forest Service agreed in principle that planning should be shared even more broadly, among private landowners, county sanitarians, county commissioners, the state Board of Health, the Bureau of Land Management and others. But Forest Service representatives still opposed a moratorium on logging.

It was the conservation groups that were to bring the controversy about Rock Creek logging to a head. In June, 1971, the Montana Sierra Club Group and the West Slope Chapter of Trout Unlimited, Inc., filed an appeal with Forest Supervisors Jack Large, on the Lolo, and Bob Lancaster, on the Deerlodge.²¹ The appeal argued that plans for logging Rock Creek were subject to NEPA and therefore the two forests must write Environmental Impact Statements.²² Considering how new the law was, the Forest Service responded with remarkable agility and avoided going to court to contest the appeal.

"You have to understand, of course, that nobody in the Forest Service knew what NEPA was," says Tom Huff, of Trout Unlimited. The appeal was referred, unofficially, to the regional and then the national office, where NEPA appeals from all over the country were making their way.²³ "Finally, the Chief (of the Forest Service) was forced to acknowledge that forest managers were responsible at the forest level for providing a written Environmental Impact Statement," says Huff. "Once they provided an Environmental Impact Statement, one could challenge it or, in light of it, could challenge the decision." This reading of NEPA was to strengthen the hand of the public in challenging timber sales throughout the country.

The appeal also accused the Forest Service of distorting the idea of "multiple-use" management. The Multiple-Use Sustained-Yield Act of 1960

requires the Forest Service to manage recreation, range, timber, watershed, wildlife and fish resources to "best meet the needs" of the American people.²⁴ "One of my theories was that multiple use as a notion was misinterpreted in the Forest Service rules and regulations," says John McCabe, the former assistant dean of the University of Montana Law School who drafted the appeal for the conservation groups. "They tended to interpret that every inch of ground was subject to multiple use so that you could log one time and then recreate another. We said some uses were inconsistent and should be separated, that not every square inch of ground was for every use."²⁵ Like the Fish and Game Department, McCabe says the appellants sought to portray the drainage as a "total entity" which ought not be managed piecemeal. Although lawyers from Sierra Club headquarters in San Francisco assisted in writing the appeal, McCabe was not sure conservationists could finance a court case arguing for treatment of Rock Creek as a single ecosystem. "If we'd had to litigate, we would have needed limnologists and a whole lot of expert assistance," says McCabe, who was just two years out of law school when he wrote the appeal. "Nobody had that kind of money."

Regional Forester Steve Yurich was equally reluctant to litigate. Although the appeal was discussed at higher levels, Yurich says it officially went no further than the forest offices where he and the two supervisors worked out a plan that satisfied the conservation groups. "We didn't wait for any directive from the Chief or from the Secretary of Agriculture," says Yurich.

"Do It Right"—The Public Strikes a Deal

In October of 1971, Yurich ordered a moratorium on timber sales. He told conservationists that no new contracts for logging, road construction or other development would be undertaken until planning under NEPA, including Environmental Impact Statements, was completed.²⁶ He appointed representatives from the state Fish and Game Department, the Montana Wildlife Federation and the University of Montana to meet with the Forest Service and review the controversy; this ad hoc group recommended creating what was to become the Rock Creek Advisory Committee, an unprecedented and unwieldy approach to Forest Service planning that nonetheless proved fruitful beyond the expectations of most

participants.

"What we felt was that in order to get people to recognize what it takes to plan an area and manage it, we should get them involved,"²⁷ says Yurich. Yurich says he first realized the value of public participation in government planning early in his career when he cut down a big Ponderosa that the Forest Service considered a hazard. "I got so much hell for cutting that, I decided whenever I could I would go around to neighbors and ask what we should do rather than just doing it."

By the early 1970s, the cutting of trees was becoming a political act. While lawyers and lobbyists challenged the power of the post-war timber industry, a conservation ethic was taking root in popular culture, even in timber-dependent regions. Yurich, like most Regional Foresters to this day, was trained in timber extraction rather than wildlife biology. But he also had a highly developed sense of public service and knew many of his neighbors wanted more out of forests than lumber. Above all, Yurich realized an increasingly strident public debate was getting in the way of rational decision-making.

Yurich explained to the supervisors on the Lolo and Deerlodge forests that a public advisory committee was needed because a "polarization of attitudes and opinions" among interest groups had "stalemated" planning in the Rock Creek watershed they managed. The polarization was so strong, he wrote, that "philosophical" discussions overshadowed talk about "capabilities" of the land. Public participation was "mandatory," he wrote, to provide advice and consider the needs of the people.²⁸

Yurich told the Lolo and Deerlodge supervisors that final management decisions for Rock Creek would be theirs alone. But he also assured the conservation groups that the committee's recommendations would be followed, and this was crucial to their decision to drop the appeal.²⁹

In the summer of 1972, the two forest supervisors sent a letter of invitation to 18 organizations representing timber, mining, agriculture, recreation, real estate, residential and conservation interests, as well as state and federal government.³⁰ The letter asked the groups to participate in a committee that would plan data collection and devise management alternatives. It explained that complying with NEPA was an "extremely complex job" on Rock Creek.³¹ Reflecting the spirit of the times, the letter also urged the groups to appoint representatives of various age groups and "well-qualified women."

Logs, Roads and Wilderness

The Rock Creek Advisory Committee, chartered by the U.S. Department of Agriculture, held its first meeting in Philipsburg in the basement of the Flint Creek Valley Bank on Halloween night, October 31, 1972; some former members say they are still haunted by the ghosts and goblins of their contentious meetings.³² Unlike anything the Forest Service had attempted before, the committee was a grueling experiment in diplomacy, a sort of Camp David of local environmental politics.

In the end, though, it worked more like a jury—a jury that met for three-and-a-half years. Those with facile agendas or a short attention span soon fell silent or dropped out. Those with the grit to stick out monthly meetings, and the tedious subcommittee work in between, determined the outcome.

It took thick skin to participate in early meetings of the Rock Creek Advisory Committee. To many with the best of intentions, it simply wasn't worth the time or the cost. Robert Bassett, of the Sierra Club, dropped out even before the committee was chartered; in the super-heated political atmosphere, he feared for his Elkhorn Guest Ranch business. Howie McDowell, who represented the Western Wood Products Association, says the 18 groups tended to send their "hardline" advocates, making consensus difficult, and that only in the subcommittees did work proceed smoothly.

Conservationists also felt they accomplished more in the subcommittees, which gave them access to new Forest Service scientists, who tended to be more sympathetic than the older, more powerful Forest Service administrators trained in timber extraction. Within the context of the subcommittees, observes Tom Huff, government scientists found they could do meaningful work without publicly contradicting traditional Forest Service policy.³³

Former committee members disagree about the details of what they accomplished, but most were surprised at how soon they came to a fundamental compromise. The meetings began in a miasma of paranoia: miners, loggers, cattlemen and residential developers all were afraid of being shut out of the Rock Creek drainage. The Forest Service dared not give priority to one resource over another for fear of violating the multiple-use mandate. The conservationists wanted no development activity, but they found a way to compromise. The Forest Service could make water quality the top priority in Rock Creek, they argued, without excluding

anyone. "We didn't say don't log," recalls Gary Eudaily of the Western Montana Fish and Game Association. "We didn't say don't build a house or a road. We didn't say don't graze or mine. We didn't ask for anything on Rock Creek other than, don't screw up the stream. We just said do it right."

The argument worked. Within the first year, the committee reached a unanimous decision that the pristine waters of Rock Creek must be protected above all else. Everett Miller is capable to this day of maintaining a straight face while announcing that the fish in Rock Creek were healthiest when the streams of the drainage ran "muddy all year long" from mining.³⁴ Yet even he was part of the consensus. The committee decided that to log without polluting Rock Creek, the Forest Service needed more information. "We wanted to tie them down," says Ron Marcoux, former fisheries biologist for the Montana Department of Fish, Wildlife and Parks, a committee member and now a researcher for the Rocky Mountain Elk Foundation. "We kept asking, are you sure you're not polluting Rock Creek?"

The answer to that came from a subcommittee. Marcoux, timber industry representative Howie McDowell, Rock Creek resident Adam Michnevich and others joined Forest Service scientists on an Aquatic Resources Subcommittee.³⁵ Less than six months later, in April of 1973, they had a water quality monitoring plan. "We felt we were setting a trend for the Forest Service, the first detailed water quality monitoring program," says Marcoux. "We were trying to set up something that would be developed for use in all streams" across the country.

The subcommittee proposed standards for the five major Forest Service activities of logging, grazing, "roading," recreation and mining.³⁶ They concluded:

Water quality must be monitored for two years before, during and after any activity. Monitors must be placed above and below the site. When a monitor shows a change in water quality below the site, the activity must be halted for inspection and corrective measures. Tributaries up to the third order (that is, a third branch off Rock Creek), must be monitored.³⁷

In what many consider the single most important achievement of the Rock Creek Advisory Committee, it approved these monitoring standards. But there was one more step. "We asked for a letter of acceptance from the two forest supervisors," says Rock Creek resident Adam Michnevich.³⁸ The heralded water quality agreement that has since

halted timber sales, harried forest supervisors and haunted forest plans lives in a one-page, three-paragraph letter from the supervisors of the Deerlodge and Lolo National Forests.³⁹ Their May, 1973 letter agrees simply to honor the Rock Creek Advisory Committee's monitoring standards.⁴⁰

That didn't end the contentious committee meetings. "It was three happy years of calling each other sons of bitches across the table," says Gary Eudaily. Adam Michnevich recalls one evening meeting in 1974 when the battle lines shifted. "George Smith, the Deerlodge supervisor, used to squat on his heels on his chair—like this," Michnevich says, climbing onto a straight-back chair in his Rock Creek dining room. "A Forest Service employee—I don't remember who—started complaining about wasted time. Smith stood up on the chair and loomed over the guy," Michnevich says, chuckling and wagging his finger. "He said, 'you're on salary and you have no right to complain while these people are sacrificing their own time.'"

Likewise, members noticed a change in Orville Daniels, who returned to the Lolo National Forest as supervisor in 1974. "There was a sort of 'greening' of Orville Daniels in all this process," says Tom Huff. "He grew up in this melee over Rock Creek; he realized the need to manage the forests properly and he became one of the best at dealing with the public."

By 1974, conservationists were carpooling to meetings with Forest Service officials, and even with representatives from the logging and mining industries. Many issues, of course, were never resolved. Wilderness designation was hotly debated, with no result other than a heightened understanding on the part of the Forest Service that the public cherishes Rock Creek's wildlands. (The Wilderness Act of 1964 included the headwaters of Rock Creek in the Anaconda-Pintlar wilderness. Then, starting in 1970, the Forest Service began taking inventory of other undeveloped areas; National Forest supervisors were required to recommend those that might be added as wilderness.)⁴¹

Wilderness Reclaimed— The Welcome Creek Story

Public debate over Rock Creek's roadless areas polarized along the usual lines. Mining and logging interests opposed any new wilderness as a lock-up of valuable resources. Conservationists suspected the Forest Service of a cynical attempt

to set aside token parcels, while releasing vast forests to development. "The Forest Service wanted to get the environmentalists off their back," says Gary Eudaily of the Western Montana Fish and Game Association. "They wanted to hasten the release of a lot of additional lands and let those wilderness freaks have the goat rocks."

Eudaily and others on the Rock Creek Advisory Committee accused the Deerlodge and Lolo Forests of chopping up roadless areas with artificial boundary lines and therefore lessening the chances that any would be adopted as wilderness.⁴² "We could have had wilderness on both sides for a full 50 miles," says Eudaily. "Most of it's still roadless. We still could."

Indeed, some 269,638 acres—nearly 60 percent of all Forest Service lands in the Rock Creek drainage—remain roadless,⁴³ though the Forest Service has recommended only 60,830 acres for complete and permanent protection as wilderness.⁴⁴ In addition, some 50,000 acres in the Sapphire Roadless Area are temporarily protected by Congress; The Montana Wilderness Study Act of 1978 forbids development "until otherwise determined by Congress."⁴⁵ But only one roadless area, the 29,235-acre Welcome Creek Wilderness Area, is guaranteed to stay that way.⁴⁶

The 1978 decision to preserve Welcome Creek had a lot to do with the way one Forest Service fire fighter celebrated his retirement. When William R. "Bud" Moore retired as regional director of aviation and fire management for the Forest Service in the summer of 1974, he decided to hike from Rock Creek canyon over the Sapphire Divide to the Bitterroot Valley. So taken was Moore with the Welcome Creek tributary of Rock Creek that he returned to stay that winter, hauling traps to help pay his way with furs. Moore followed game paths, found ruins from placer mining days and in springtime walked out over the Divide with a journal that was to become the basis of a crucial report.⁴⁷

Welcome Creek already was controversial. The Forest Service had not recommended it for wilderness designation. A ten-year-old timber sale in the Welcome Creek area had never been revoked, though the purchaser hadn't yet found a way to cut the trees economically. And logging was creeping toward the creek from two directions. Though Moore was "fascinated by the history and by all that water, with springs right up on top,"⁴⁸ he was also worried: Extensive evidence of placer

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mining and the potential for new mines might make wilderness designation impossible for Welcome Creek, Moore felt. Instead, he asked that the timber sale be cancelled until public meetings could be held. The Forest Service regional office rejected his recommendation.

Moore's Welcome Creek report might have ended in the dustbin but for Bill Cunningham, a longtime wilderness advocate from Missoula who was in Washington D.C. during the late 1970s working for the Wilderness Society. Cunningham was helping U.S. Rep. Morris Udall (D-AZ) and Sen. Frank Church (D-ID) draft a bill that would sweep lots of scattered bits of undeveloped land together and add them to America's wilderness.

"One of the things I was trying to do was to knock down some of these purity ideas that would keep an otherwise qualified area from passing into wilderness," says Cunningham, who got hold of Moore's Welcome Creek report and found it fit the bill. "We felt the old cabins and mining diggings were not an adverse impact but a piece of history gradually falling into the ground. We wanted to reclaim the area."⁴⁹

The Forest Service had failed to recommend Welcome Creek for wilderness in large part because of a road built across the northeast corner, but that didn't stop Cunningham either. "The Forest Service never should have built that road. It was one of those 'get-ahead' roads they build before a timber sale to make the sale more attractive. So this was an opportunity to dramatize the Forest Service abuse of the public trust. They used tax money to build a road that shouldn't have been built and then used that as an excuse to exclude 30,000 acres from wilderness."

When Congress passed the Endangered American Wilderness Act of 1978, Welcome Creek was one of three Montana roadless areas to gain wilderness designation.⁵⁰

"Intent and Spirit"—Monitoring the Monitors

By then, the Rock Creek Advisory Committee had disbanded. The committee held the last meeting of its stormy and productive life on June 29, 1976.⁵¹ The Forest Service had expected to spend about \$1,000 a year on the process.⁵² But for much of its life, the committee was the only advisory group operating under the Forest Service and was a high priority experiment. Washington officials flew out to attend meetings, records and minutes

were transcribed for the Secretary of Agriculture. Money was no obstacle. One participant calculates the Forest Service spent \$2.7 million on the committee.⁵³

Not everyone agrees the committee was a success. Although Everett Miller stuck it out as representative of Granite County KEEP, he has since concluded bitterly that all the advisory committee did was "educate my opponents." Though Howie McDowell, who represented timber interests, agrees many conflicts remain unresolved, he believes the "emotional scenes" of early meetings gave way to "frank discussions and some solid decisions."

For a while, the committee's legacy of strict monitoring seemed sure to guide Forest Service policy on Rock Creek lands. The Forest Service used committee guidelines to produce regulations covering the entire drainage. It also acknowledged that any logging in Rock Creek canyon would detract from the scenic value of the area and would have to be subsidized. It concluded that no logging should occur there.⁵⁴ But even as the Rock Creek Advisory Committee was preparing to disband, the National Forest Management Act of 1976 was working its way through Congress.⁵⁵ Soon, the Forest Service regulations reviewed and approved by the Rock Creek Advisory Committee were shuffled aside for an entirely new planning process.⁵⁶ And although the moratorium on timber sales was not officially lifted until 1983,⁵⁷ heavy logging was resuming along such tributaries as Upper Willow Creek.⁵⁸

With the advisory committee gone and conservationists counting on a defunct moratorium, the state Fish, Wildlife and Parks Department (formerly Fish and Game Department) became for a while the only whistle-blower. State officials concerned about elk habitat kept tabs on new logging roads. By 1980, more than 60 percent of all the land in one Upper Rock Creek hunting district (216), was within a mile of a road. This compared with barely half that—54 percent—in 1960, and 39 percent in 1970.⁵⁹

In 1982, simmering hostilities between the state and the Forest Service boiled over. State officials demanded to know why their comments about fish and game habitat were ignored in a draft of the Lolo Forest Plan.⁶⁰ The recommendations of the Rock Creek Advisory Committee were also being ignored, they said. Lolo officials didn't deny it; they insisted that while water quality monitoring was optional, cutting timber was mandatory under Forest Service regulations.⁶¹

Montana Governor Ted Schwinden criticized the Lolo plan for underestimating the value of hunting and for allowing a projected 63 percent increase in stream sediments during the first ten years of the plan.⁶² But wildlife experts were most alarmed by the pace of logging in the Deerlodge National Forest, which by 1982 still had not drafted a plan.

State officials focused on the Upper Willow Creek tributary, where they said logging was resuming without the monitoring promised to the Rock Creek Advisory Committee. They complained that a district ranger—rather than the Deerlodge forest supervisor—was handling the sales. So-called “ranger authority sales” required less advertising and thus less public scrutiny. The Department of Fish, Wildlife and Parks called for a halt to ranger authority sales and urged the following actions: Rock Creek must be removed from the timber base and treated as a special management area, with all logging and roading in either forest addressed in a single plan. The economic values of competing resources in the drainage must be analyzed independently. Water quality must be monitored as recommended by the Rock Creek Advisory Committee; the committee itself must be revived.⁶³

Despite these recommendations, both the Lolo and the Deerlodge Forest Plans drafted in 1985 failed to mention the water quality agreement made with the Rock Creek Advisory Committee. By now, logging was planned even for Sand Basin Creek on the Deerlodge, where the committee had warned that erosive “granitic” soils increased the chance of stream pollution.⁶⁴

In January of 1985, the Philipsburg district ranger published an article in *The Philipsburg Mail* detailing 10 active and 11 proposed sales. The sales would yield about 33 million board feet of timber—more than 4,000 acres of clearcut—in the Rock Creek drainage.⁶⁵ The news awakened the dormant Rock Creek Advisory Committee, whose members didn’t wait for an invitation to reconvene. Alarmed, they sent a letter demanding to see records of Deerlodge National Forest monitoring; they asked why the Forest Service had failed to monitor water quality before holding the timber sales.⁶⁶ For the next three years, the committee met informally at least every six months to keep tabs on the Forest Service: they toured timber sale sites, discussed monitoring techniques and reviewed logging and road development plans.

In a series of public meetings, they and others complained that though Deerlodge officials

had monitored stream flows and temperatures in several places, none of the testing was matched with timber sales or roads. Instead of monitoring bedload, which is a good indicator of potential harm from logging in the hilly, erosive soils of the area, they said the Deerlodge was only monitoring suspended sediment.⁶⁷ Rock Creek Advisory Committee members said the Forest Service budget for monitoring was too small. They demanded that their original agreement be brought up to date and carried out.⁶⁸

Exactly why standards slipped on the Deerlodge after the Rock Creek Advisory Committee disbanded is still open to dispute. “It was partly technical and partly forgetting,” says Lolo Forest Supervisor Orville Daniels. Financial problems, personnel changes and political maneuvers within the Forest Service all played a part.⁶⁹ Rallies in Philipsburg in the mid-1980s drew as many as 300 people to argue for jobs first, fish second. For Deerlodge Supervisor Frank Salomonsen, in his Butte office, this constituency eventually drowned out the grumbling from Missoula-based conservationists. Salomonsen’s strategy was to ignore the rigorous monitoring required for Rock Creek until regional headquarters agreed to help pay for it.⁷⁰ That never happened. Instead, the public outcry forced the Deerlodge to comply.

Supervisors of both the Lolo and the Deerlodge agreed publicly to consider delaying logging in light of charges that timber sales were not being monitored with the “intent and spirit” of the original Rock Creek Advisory Committee agreement.⁷¹ Salomonsen agreed not only to provide records of all monitoring, but to establish a task force of fisheries biologists and foresters representing both national forests and the Montana Department of Fish, Wildlife, and Parks.⁷² The task force would help decide what information was needed on potential pollution from logging.

At a meeting with state wildlife officials and Rock Creek Advisory Committee members, Forest Service representatives tried to gauge the acceptable factor of risk to the fishery. Officials of the Department of Fish, Wildlife and Parks were emphatic: they would accept *no risk*.⁷³ Deerlodge Supervisor Salomonsen went almost as far: he pledged himself anew to a “minimal risk” approach to water quality and fisheries and a critical look at proposed timber sales in the drainage.⁷⁴

Both forests also agreed to study the sediment impact of logging in sensitive soils, and to

monitor each sale. Before the year was out, Deerlodge officials were monitoring 22 stations.⁷⁵ (Lolo, which monitored just four stations, reported no perceptible impact from logging and roading.) The Deerlodge also wrote a new plan for water monitoring whose goals included "restore public trust."⁷⁶

In 1986 and 1987, the Lolo and Deerlodge Forests finally published National Forest Plans that included a joint section on Rock Creek in which they agreed to protect water quality in accordance with the Rock Creek Advisory Committee's monitoring guidelines.⁷⁷ Both forests pledged to maintain outstanding fisheries as well as the beauty of the landscape. Then, an unusual settlement of two appeals of the Deerlodge Forest Plan further strengthened protections for old growth forest, elk habitat and fisheries. The appeals resurrected the spirit of creative cooperation pioneered by the Rock Creek Advisory Committee. Filed by a coalition of conservation groups and a coalition of timber concerns, they were settled jointly in 1989 without resort to normal administrative or judicial channels. "What was different about this settlement was that we accepted an initial move by the Forest Service to sit down and talk about our concerns," says Sean Sheehan, who represented the conservation groups, led by the National Wildlife Federation. The timber companies also accepted the offer to talk. "It's one of the first times—if not the first—a Forest Plan appeal was settled that way," says Sheehan. Both groups went to the table with the understanding that if the talks failed they would return to the normal appeal process. Instead, they came up with a 39-page document—the settlement agreement—and a pledge to continue working together on forest management.⁷⁸ In 1991, representatives of both groups were working with Deerlodge Forest planner Ron Hanson to minimize the impact of logging roads.⁷⁹ "The bottom line is, we're still talking to each other," says Hanson. There will be plenty more opportunity for such public participation in Rock Creek planning: 27 percent of the lands in the drainage are to be managed for timber and grazing and nearly 70 million board feet of timber are scheduled to be offered during the 1990s.⁸⁰

A High-Tension Trade-off

From the very beginning, those concerned about Rock Creek's scenic and biological values recognized how hard it is for an agency to police its own activities. John McCabe, the attorney who

filed the 1971 appeal, remembers the Forest Service response as surprisingly flexible, but adds, "One of the things we decided was that we don't trust anybody. We've got to enforce monitoring." State wildlife officials in 1987 agreed that the "battle" for wildlife and pristine fisheries would never end on the marginal timber lands of the Rock Creek drainage.⁸¹

Although nobody foresaw it, the debates over power lines that began in the early 1970s were to yield an independent agency capable of guarding Rock Creek's scenic and biologic values for the long term. First, a Montana Power Company request to run a transmission line—and 80-foot-wide clearing—from Hamilton to Anaconda across the drainage near Skalkaho Pass was denied. Then, after years of discussions about various proposals, a consortium of five power companies led by the federal Bonneville Power Administration had better luck. They asked permission to stretch a high-tension line across the canyon near the mouth of Rock Creek, carrying electricity west from Garrison, Montana. Federal agencies including the U.S. Forest Service gave permission in May, 1983 for the five companies to run the line across Rock Creek canyon.⁸²

Conservationists protested that the power lines would spoil the wild beauty of the canyon. The West Slope Chapter of Trout Unlimited, the Montana Wildlife Federation and the National Wildlife Federation appealed the decision.⁸³ The appeal complained that a Forest Service Environmental Impact Statement (EIS) on the proposed transmission lines had failed to consider that the lines would cross five roadless areas eligible for consideration as wilderness.⁸⁴ The appeal argued that the EIS gave inadequate consideration to the effects of the lines and access roads on big game and wildlife habitat, hunting and future logging. And the appeal alleged the Forest Service failed to consider alternatives to the roadless area crossings and to the crossing of Rock Creek, a "special recreational resource" for Montanans and visitors and the state's only blue ribbon trout stream west of the Great Divide.

The State Department of Natural Resources filed its own appeal soon after, complaining about the crossing at Rock Creek.⁸⁵ The Forest Service granted a stay of construction and in August, 1983, the parties reached a compromise.⁸⁶ The high-tension lines would cross Rock Creek, and in mitigation, the power companies would give \$1.65 million to a trust for the conservation of Rock Creek. The lines were completed in 1985, stretching across Rock Creek 600 feet above the canyon floor

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Today, the state Board of Natural Resources and Conservation administers the Rock Creek trust fund through the Rock Creek Advisory Council, which includes two representatives from the West Slope Chapter of Trout Unlimited as well as one each from the Montana Wildlife Federation, the National Wildlife Federation, the Montana Department of Fish, Wildlife, and Parks, the state Natural Resources and Conservation Department and area property owners.⁸⁷ The Council is dedicated to preserving a pristine habitat in the Rock Creek drainage for fish, wildlife—and people. Specifically, it monitors compliance with previous plans and agreements, encourages recreation consistent with traditional uses, tracks land use, ownership and stream access, secures conservation easements and buys key blocks of land to maintain open space and

access to the creek. It funds conservation and education projects, maintains an archive and encourages cooperation among public and private agencies active in the drainage.⁸⁸

The council works closely with rangers from both forests. When Missoula District Ranger Dave Stack talks about the Rock Creek drainage these days, he uses phrases like “national treasure,” “new perspectives in forestry” and “trying to be more ecosystem based.”⁸⁹ His language is a measure of how far the Forest Service has come along the banks of Rock Creek.

“It was perplexing to me when I first came what all this public participation meant,” says Stack. “There are only a few things written as agreements. But what really developed is a vision of Rock Creek and how it was to be managed.”



Slide Rock, Fisherman's Cabin. Circa 1920.

ENDNOTES

1. U.S. Department of Agriculture, Bureau of Land Management, *The Public Land Records*, footnotes to American history, 1959. The public lands were acquired through treaty or purchase or ceded by the original 13 states.
2. The Hell Gate National Forest, created on October 3, 1905, included all the Rock Creek lands that were to become the Deerlodge and Lolo National Forests. When the Missoula National Forest was created on July 1, 1908, part of the Hell Gate National Forest in the Rock Creek drainage was included. The Deerlodge National Forest also was created on July 1, 1908, but it wasn't until December 16, 1931 that Rock Creek lands from the Hell Gate and Missoula National Forests were transferred to the Deerlodge. On the same day, the remainder of Missoula National Forest lands in the Rock Creek drainage were transferred to the Lolo National Forest (which had been created on September 20, 1906).
3. U.S. Department of Agriculture, *The Principal Laws Relating to Forest Service Activities*, Organic Administration Act of 1897, p. 5.
4. U.S. Forest Service, Lolo National Forest, Lower Rock Creek Planning Unit Draft, 1977, p. 48.
5. Darlene Olson, *Up The Creek: History of Early Settlers on Rock Creek, Bonita and Quigley*, p. 21. Today, smokejumpers, helicopter crews, and planes based in Missoula help fight fires in the Rock Creek drainage. The potential for insect infestations, root rot and canopy fires increases with fire suppression, says Dave Stack, Missoula District Ranger, Lolo National Forest. See "Fire Ecology and Its Management Implications in Ponderosa Pine Forests," by Stephen F. Arno, Washington State University Cooperative Extension Service Symposium, 1988.
6. Arnold W. Bolle, "The Bitterroot Revisited: A University Review of the Forest Service," *The Public Land Review*, p. 3.
7. *Ibid.*, p. 2.
8. Dr. Gary Eudaily, M.D., Western Montana Sportsman's Association, personal interview, October, 1990.
9. For graphs and statistics on timber harvests, see Appendix E.
10. "The logging degradation was taking place beyond the average person's view," says self-employed Missoula businessman Robert Bassett, a founding member of the Montana Sierra Club Group. "But we hunted up there and saw it at the head of Kitchen Gulch and Gilbert Creek" (Telephone interview, October, 1990.) Tom Huff, a founding member of the West Slope Chapter of Trout Unlimited and professor at the University of Montana School of Law, recalls, "It looked like a war zone up there." (Telephone interview, October, 1990.)
11. Montana Fish, Wildlife and Parks Department. Issue Paper: Major Issue, Rock Creek and Forest Management, October 25, 1984.
12. Letter to Orville Daniels and Frank Salomonsen from Adam Michnevich and others reviewing Rock Creek agreements, February 15, 1985.
13. The bridge was completed in 1971, according to Adam Michnevich.
14. Gary Eudaily is also a longtime Rock Creek cabin owner who worked his way through college on Forest Service summer crews in the drainage.
15. Orville Daniels, Lolo National Forest supervisor, personal interview, October, 1990.

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16. Tom Huff, telephone interview.
17. Everett Miller, chairman, Granite County K.E.E.P., telephone interview, October, 1990.
18. Tom Huff, telephone interview.
19. *Missoulian* articles, March 1, 2, 3, 5, 6, 8, 11, 13 and April 14, 1970.
20. Montana Fish and Game Department memo, March 6, 1970.
21. U.S. Forest Service letter, July 7, 1971, requesting information from appellants, says a statement of appeal was received from Thomas P. Huff and signed by Robert Bassett, Ken Craft, T.H. Birch, Patty Calcaterra, Ivan E.L. Levesque and William F. Caruso.
22. Tom Huff, telephone interview.
23. Although the appeal never officially went beyond the level of forest supervisor, both Huff and former Regional Forester Steve Yurich say it was discussed at both the regional and national levels.
24. The Act specifies that some land "will be used for less than all of the resources" and that consideration will be given "to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output." The Act specifically notes that wilderness is consistent with multiple use. See *The Principal Laws Relating to Forest Service Activities*, U.S. Department of Agriculture. pp. 156-157.
25. John McCabe, Chicago attorney, telephone interview, October, 1990.
26. U.S. Forest Service Regional Forester Steve Yurich, letter of June 23, 1972, to Forest Supervisors Jack Large and George Smith, refers to an October 1971 letter to Gary Eudaily.
27. Steve Yurich, retired, telephone interview, October, 1990.
28. Letter from Steve Yurich to Jack Large and George Smith, September 21, 1972.
29. Montana Department of Fish, Wildlife, and Parks, Issue Paper, October 25, 1984, op. cit.
30. Letter from Jack Large and George Smith, August 8, 1972.
31. The Rock Creek Advisory Committee charter says the goal was to advise the forest supervisors on management "from a local, regional and national standpoint."
32. The members, in October, 1972, were:
 - Robert Rothweiler and Ron Marcoux, MT Fish and Game Dept., Missoula
 - Don Brunum, MT Dept. of Natural Resources and Conservation, Helena
 - Dan Reid and Bill Kempfer, Philipsburg Chamber of Commerce, Philipsburg
 - Marvin McMichael, Missoula Area Chamber of Commerce, Missoula
 - James Hill and Lloyd Greenup, Lumber and Sawmill Workers Union, Missoula
 - Dr. Gary Eudaily and Dr. James Brogger, Western Montana Fish and Game Association, Missoula
 - Tom Huff and Dave Emmons, West Slope Chapter, Trout Unlimited, Missoula
 - Jean A. Warren, Paul Brunner, Bitterroot-Missoula Group, Sierra Club, Missoula

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Norm Larum, Adam Michnevich, Rock Creek Association, Clinton
Will Chaussee and Lorraine Gillies, K.E.E.P. of Granite County, Philipsburg
E. William "Bill" Victor and Vic Johnson, Granite County Conservation District, Philipsburg
John Thomson and Russ Marchion, Anaconda Sportsmen's Club, Anaconda
Robin Hensen and Cliff Braach, Granite County Farm Bureau, Philipsburg
Gene Nelson and Bob Kyser, Western Montana Mining Association, Helena
Mike Chandler and Kulhem, Missoula Real Estate Board, Inc., Missoula
Howard G. McDowell and Leonard Gondek, Western Wood Products Association, Missoula
H.L. "Bill" Cross and Arnold Arnett, Big Sky West Chapter, Outdoors Unlimited, Missoula

33. Tom Huff, telephone interview.
34. Everett Miller, telephone interview.
35. Members of the Aquatic Resources Subcommittee were Bob Kyser, Western Montana Mining Association; Howie McDowell; Adam Michnevich and Norm Larum, Rock Creek Association; Ron Marcoux & Rocky Rothweiler, Montana Fish and Game Department; Gary Eudaily; Robin Hensen, Granite County Farm Bureau; Gene Nelson, Western Montana Mining Association.
36. Rock Creek Advisory Committee, "Proposal: Project Work Aquatic Resource Monitoring Procedures, Rock Creek Drainage," April 11, 1973. The subcommittee also proposed that the Lolo and Deerlodge forests share one Environmental Impact Statement, which not only would ensure ecologically sound coordination for the drainage but also would save the Forest Service \$50,000.
37. For logging, the subcommittee established standards both for chemicals and sediments entering the streams. Monitors would measure suspended bedload, turbidity, temperature, conductance and pH.
38. Adam Michnevich, personal interview, October, 1990.
39. Letter signed by Deerlodge Forest Supervisor George M. Smith and Lolo Forest Supervisor Jack Large agreeing, with minor changes, to Aquatic Resource Subcommittee recommendations, May 31, 1973. See Appendix C.
40. Within two years, 16 water monitoring stations were operating, according to Ron Marcoux.
41. The original nationwide roadless area inventory was completed in 1973. See Rock Creek Advisory Committee minutes of January 22, 1974, U.S. Forest Service presentation. An undeveloped area was generally considered to include at least 5,000 acres.
42. The Sapphire Roadless Area alone was fractured into six pieces by the administrative boundaries of National Forests and Ranger Districts, according to wilderness activist Bill Cunningham.
43. Lolo Forest acreage in the Rock Creek drainage: 182,756. Deerlodge Forest acreage in the Rock Creek drainage: 276,179. Total: 458,935 acres. (Source: Lolo National Forest Plan, 1986, Rock Creek Management Areas) Roadless Lolo Forest acreage in the Rock Creek drainage: 119,000. Roadless Deerlodge Forest acreage in the Rock Creek drainage: 150,638. Total: 269,638 acres. (Sources: 1986 Lolo Forest Plan—Appendix C, 1987 Deerlodge Forest Plan—Appendix C) Thus, 58.75 percent of Forest Service lands in the Rock Creek drainage remain roadless.
44. Lolo National Forest Plan, Appendix C, 1986. See also: Lolo and Deerlodge National Forest Plans, 1986,

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Rock Creek Management Area. About a third—95,875 of a total 269,638 roadless acres—are managed “to preserve the roadless resource,” though only the 60,839 acres of the Quigg Peak Roadless Area are recommended for wilderness.

45. The 50,000 acres of the Sapphire Roadless Area included in the Wilderness Study Act amounts to 52 percent of the 95,876 acres designated for roadless management by the Forest Service. The area is adjacent to the Anaconda Pintlar Wilderness.
46. The Lolo and Deerlodge Forest Plans divide management emphases on their Rock Creek lands as follows: 27 percent for timber and range, 10 percent for wildlife, 3 percent for riparian, 21 percent for roadless, 10 percent for miscellaneous (which includes administrative and recreation sites) and 28 percent for wilderness.
47. William R. “Bud” Moore, “Public Treasures in the Welcome Creek Drainage,” Sapphire Mountains, Montana, April, 1975.
48. Bud Moore, telephone interview, October, 1990.
49. Bill Cunningham, personal interview, December, 1990.
50. The Absaroka-Beartooth and the Great Bear Wildernesses also were designated under the Endangered American Wilderness Act of 1978.
51. Orville Daniels, memo, June 8, 1976.
52. Letter from Jack Large and George Smith to Steve Yurich, September 21, 1972.
53. Gary Eudaily, personal interview.
54. U.S. Forest Service Multiple Use Plan, Lower Rock Creek Planning Unit, Background Information Packet and Management Alternatives, April, 1977.
55. Instead of dividing each forest into smaller planning units as NEPA had done, the new law required comprehensive forest management plans.
56. Montana Department of Fish, Wildlife, and Parks, Issue Paper, October 25, 1984, op. cit.
57. Letter from Regional Forester Tom Coston to Deerlodge and Lolo Forest Supervisors, March 8, 1983.
58. Montana Department of Fish, Wildlife, and Parks, Issue Paper, October 25, 1984, op. cit.
59. Ibid.
60. Ibid. See notes on meeting of April 28, 1982. See also Draft Lolo Forest Plan, U.S. Forest Service, June 30, 1982.
61. Ibid.
62. Ibid. State Officials said they also suspected that because logging quotas were not reduced for either the Lolo or the Deerlodge during the Rock Creek moratorium, areas outside the drainage were too heavily cut.

Endnotes

63. Ibid.
64. Montana Fish, Wildlife and Parks Department memo, March 5, 1987.
65. *The Philipsburg Mail*, January 31, 1985.
66. Letter from Adam Michnevich and others to Lolo and Deerlodge supervisors, February 15, 1985.
67. In areas of granitic soil, streams can be "clear as gin," and still carry a bedload of tiny pebbles that can destroy a fishery, according to Dennis Workman, regional fisheries manager, Region 2, Montana Department of Fish, Wildlife and Parks (personal interview, October, 1990).
68. Montana Department of Fish, Wildlife and Parks memo on Sand Basin water monitoring meeting, March 7, 1985.
69. Former members of the Rock Creek Advisory Committee were first told that records had been lost during personnel changes, though Salomonsen, in his letter of March 27, called those losses "minimal."
70. Orville Daniels. Though members of the Rock Creek Advisory Committee abhorred Salomonsen's tactics, many still believe his budgetary concerns were valid: the cost of monitoring should not be born by the forests, they say, but should be factored into the sale price of timber in the Rock Creek drainage. Monitoring is, after all, as much a cost of doing business in the drainage today as growing trees or building roads.
71. *Missoulian*, article by Steve Woodruff, March 29, 1985.
72. Letter from Frank Salomonsen to Adam Michnevich and others, March 6, 1985.
73. Montana Department of Fish, Wildlife and Parks memo of March 7, 1985, op. cit.
74. Letter from Frank Salomonsen to Adam Michnevich and others, March 27, 1985.
75. The Rock Creek Advisory Committee objected to what members called "experimenting" with monitoring techniques. Forest Service scientists responded that enough baseline data had been collected on pH, specific conductance and metals. They argued monitoring for chemical pollutants should resume only when a mining project is proposed. They said regular monitoring should concentrate on stream flow, suspended sediment and bedload sediment. (Fisheries in the Rock Creek drainage are most likely to be harmed, they said, when streambed pebbles and sands are covered by fine dirt.) See Montana Department of Fish, Wildlife and Parks memo of meeting with Tim Sullivan, Deerlodge hydrologist and former members of the Rock Creek Advisory Committee, August 7, 1985.
76. Deerlodge National Forest Rock Creek Watershed and Fisheries Monitoring Plan for FY 1985/86, by Robert J. Sullivan, Deerlodge hydrologist, and Greg Munther, Lolo fisheries biologist.
77. The joint management plan was first published in 1986 in the Lolo Forest Plan. A copy was included in the Deerlodge Forest Plan, published in 1987.
78. Settlement Agreement Between the Deerlodge National Forest, and the National Wildlife Federation, et al. and the Intermountain Forest Industry Association et al, Autumn, 1989.
79. In 1991, they were focusing on the Harvey Eight-Mile side of the Silver King Roadless Area, east of Rock Creek. The conservation groups that filed the appeal are now known as the Deerlodge Conservation Coalition.

Endnotes

80. Montana Department of Fish, Wildlife and Parks, "Rock Creek Fisheries Management Plan," September 1989-September, 1994.
81. Montana Department of Fish, Wildlife and Parks memo from Don Peters and Dennis Workman to Jim Posewitz, March 5, 1987. The memo says the "excesses" of past timber management programs are likely to aggravate future problems in marginal areas.
82. The three federal agencies who gave the go-ahead were the Forest Service, the Bureau of Land Management and the Bonneville Power Administration. For a legal history of the controversy, see "Report of the Rock Creek Advisory Council to the Board of Natural Resources and Conservation," March, 1991, and the Administrative Appeals Time-Table, 1983, compiled by the Rock Creek Advisory Council. Much of the information in the above two reports is available in the files of Missoula attorney Karl Englund. The files are marked "TU BPA—settlement" and "TU/BPA—Admin. appeal of 5/23/83 ROD." See also the Memorandum of Agreement by and between the West Slope Chapter of Trout Unlimited, the Montana Wildlife Federation, the National Wildlife Federation (appellants) and the Montana Department of Natural Resources (state appellant) and the Bonneville Power Administration, Montana Power Company, Puget Sound Power and Light Company, Portland General Electric and Pacific Power and Light Company (intervenor), August 18, 1983.
83. The appeal was filed on July 6, 1983.
84. The Forest Service Environmental Impact Statement (EIS) regarding a right-of-way for the transmission lines was filed with the Environmental Protection Agency on March 15, 1983. The roadless areas at issue were listed as eligible for wilderness designation under RARE II. The 9th Circuit Court of Appeals, in *California v. Block*, had set standards requiring a site-specific EIS for each RARE II land altered.
85. In the appeal, filed on July 7, 1983, the Department of Natural Resources and Conservation alleged the crossings of Rock Creek and Miller Creek were not in compliance with the Major Facilities Siting Act. The Department favored laying the lines underground, especially at creek crossings. The state's position was first expressed in a May 6, 1983 request from the Board of Natural Resources and Conservation for further studies of the power line crossings.
86. Memorandum of Agreement, August 18, 1983. Seeking to avoid delays, the power companies had on July 11, 1983, asked to intervene. The Forest Service granted that request at the same time as the stay of construction.
87. Rock Creek Trust Fund Agreement by and between the West Slope Chapter of Trout Unlimited, the Montana Wildlife Federation, the National Wildlife Federation, the Montana Department of Natural Resources and Conservation, the Board of Natural Resources and Conservation and the Montana Department of Fish, Wildlife and Parks, January 9, 1986. Representation was deliberately allocated so that the citizens' groups which brought the appeal—as opposed to property owners and the state—would remain in the majority; hence the two representatives from Trout Unlimited and one each from the state and national branches of the Wildlife Federation. Under the agreement, the Council is authorized to spend as much as a third of the trust in any given year, but the Council has since adopted a policy of managing the trust in perpetuity.
88. 1987 Annual Report of the Rock Creek Advisory Council.
89. Lolo Forest memo, Dave Stack, January 17, 1989. Stack confirms John McCabe's interpretation of multiple use, saying, in the case of Rock Creek, that "certain commodity management activities are not consistent with the other values present."



Osgie, Montana, circa 1905



Photos printed with permission from the Montana Historical Society, circa 1905

CHAPTER TWO

"It Gets in Your Blood"

Placer and Lode

Frontier Democracy—The Mining Law of 1872

Anyone who believes the wild west is dead hasn't given much thought to mining. Rock Creek is rich with mining lore: seams to snare eastern investors, run-ins between miners and government agents and the usual heartbreaking roller coaster of market prices. Despite the public's concern for its blue ribbon fishery, the levels of cadmium and lead in Rock Creek have exceeded Environmental Protection Agency "gold book" water quality standards for freshwater aquatics.¹ Officials blame a century of mining—most of it unregulated—for these heavy metals concentrations. Of all the activities in the Rock Creek drainage, mining is the hardest to control.

To understand mining in Rock Creek—or anywhere in the nation—it helps to step back more than a hundred years to the General Mining Law of 1872. The Mining Law was born of the same frontier spirit as the Homestead Act, which gave free land to settlers, and it operates on the simple principle of finders keepers: anyone who finds a valuable mineral deposit on federal land is generally allowed to take it.²

"It was the most democratic process ever," says Ted Antonioli, a geologist for A & M Mining Company whose family has been in the business in the Philipsburg area for generations.³

More than a century later, the Mining Law still governs gold, silver, copper and other "hard-rock" minerals (as opposed to coal, oil, gas, sand, gravel and quarry stone). And while miners may applaud it as democratic, property owners in the Rock Creek drainage tend to consider it confiscatory. The federal government retained "subsurface"—or mineral—rights to homesteads granted after 1912; on such lands, miners apply to the Bureau of Land Management or the Forest Service for permission to dig up a rancher's property. "We own quite a bit of surface rights but the government retained the mineral rights," says Bob Neal, whose 7,000-acre family ranch lies 40 miles up Rock Creek. "So miners have access to prospecting on our private land. It can get to be a bad situation."⁴ The only recourse of the "surface" property owner is to petition the federal agency controlling the

mineral rights and show good reason why the area should be withdrawn from mining activity. Where mineral rights are privately held, the surface owner may purchase them like any other piece of property.

While mineral holdings under private lands are called "rights," mineral holdings under public lands are called "claims." A prospector who can show he might reasonably expect to profit from a claim may purchase the site from the government for \$2.50 or \$5 an acre depending on the type. That process, called "patenting", was a bargain even in the last century. The green Forest Service maps of Rock Creek are laced with fingers of white representing mining claims that have become private property. Most are "placer" claims or surface deposits following the gentle creek beds of the upper Rock Creek basin. (Placer deposits are generally leached from "lode" sites—underground veins—upstream. But the exploited lode sites of Rock Creek are concentrated along the steep gulches draining into the canyon.) Although the General Accounting Office reports that since 1978, some 157,000 acres of public land nationwide have passed into private ownership for a patenting fee,⁵ the federal forests of Rock Creek patented their last acre in 1939.⁶ Since then, it hasn't been worth a Rock Creek miner's time and expense to go through the patenting process.

"Most of the operations on Rock Creek have been on small bodies; they basically manage to mine them out in a year or so," says Jim Sheldon, a mining engineer for Region One of the Forest Service. "The law (covering patents) hasn't changed but enforcement has; where we used to be able to look at maybe one in five, every claim that goes to patent nowadays gets a hard look. There's been a change in the public philosophy; government ownership of land used to be considered un-American and patents were intended as a just reward for exploration. In the '60s that all changed."

From a miner's point of view, "it costs a lot in lawyers' fees to patent a claim these days," says Antonioli, "and it doesn't get you out of regulations."

"They Fought It When It Came"— New Rules and Exemptions

Although the 1872 Mining Law is still in effect, both state and federal anti-pollution standards have toughened considerably in the past 20 years, and control at least the large mines on private as well as public land.

The Montana Metal Mine Reclamation Act of 1971 requires an exploration license and, for big mines, an operating permit that may be reviewed by the public and must include a plan for cleaning up the site. The miner must post a bond to ensure "reclamation" of the site. The state also performs an Environmental Assessment and, if necessary, a more detailed Environmental Impact Statement.

In 1974, the Forest Service adopted regulations similar to the state's. "Miners went a hundred years with no regulation and they really fought it when it came," says Ron Wachsmuth, minerals administrator for the Missoula Ranger District of the Lolo National Forest.

But conservationist critics say neither the Forest Service nor the state are capable of enforcing regulations on the 55,000 mining claims in Montana. Bonds posted by miners are often grossly inadequate to the cleanup jobs required, say critics.

Sometimes the laws and regulations themselves cause problems, says Bruce Farling of the conservationist Clark Fork Coalition. For example, to keep a claim on public land under the General Mining Law, a prospector must spend \$100 a year developing the site, and that may prompt needless activity. "They go out with a bulldozer and knock down several trees just to maintain the claim," says Farling. "There are also people out there for recreational purposes," he adds. "They get a claim and they put up a cabin and use it for hunting."⁸

While Forest Service regulations cover all mines, the state exempts those smaller than five acres (or that remove fewer than 36,500 tons of earth). Today, some 25 mines are operating on the Rock Creek drainage, most under the state's small miner's exemption.⁹ Keeping track of them, much less enforcing regulations, is difficult, to say the least. Prospectors' methods and manners are still the stuff of folk philosophy and legend.

Rock Creek resident Adam Michnevich tells stories of accosting miners bulldozing at night who disappear by the time a Forest Service ranger arrives to investigate. "Miners are very secretive by nature," he says. Don Lawson, a staff field agent for the Mon-

tana Bureau of Mines until his retirement in 1985, has a slightly different perspective; he says a "sleazy" few miners tarnish the reputation of the rest. "Gold mining is scary," observes Jay Cornish, a senior environmental biologist with MSE, Inc., a Butte mining consulting firm. "It gets in your blood, like gambling, and you always have to blast one more round. You don't quit until you're forced to quit."

Whatever the nature of the miners, Rock Creek country has yielded a small fortune in sapphires, lead and zinc in the past hundred years. But it was gold—and rumor of gold—that generated the greatest excitement. And it was gold that begat on the banks of Rock Creek western Montana's biggest boondoggle ever.

"A Gentleman So Prominent"— Babcock, Quigley, and the Early Prospectors

The story of Quigley, a place that rose to boomtown and fell to ghost town in the space of a year, begins with a Philipsburg mining promoter named George H. Babcock. Babcock was a "gentleman so prominent in mining circles," wrote *The Montana Silverite* newspaper in 1896, that the "mere mention of his name" was "sufficient guarantee that the vast interests" of the company he represented would be "well looked after."¹⁰ That reputation had helped Babcock in 1895 interest a Wilmington, Delaware, grocery wholesaler named Winfield S. Quigley in a gold mine at the top of Brewster Creek, a Rock Creek tributary. Quigley sent an investigator from the Colorado School of Mines, who reported that this was the "largest body of gold ore" he had ever inspected.¹¹

Convinced, Quigley raised more than a million dollars from eastern and English investors.¹² That was nearly enough to finish a gigantic mill and power plants as well as an electric railroad laid across some of the steepest and roughest country imaginable.

By the summer of 1896, some 2,000 workers from Missoula and Philipsburg had flocked to the tent city of Quigley at the confluence of Brewster and Rock Creeks.¹³ At a time when industrial wages averaged under \$2.50 a day, union wages in Quigley amounted to as much as \$6.50 an hour for a teamster with horses.¹⁴ The generous payroll attracted shops and barbershops, saloons and restaurants, a blacksmith and a tin smith, three

Placer and Lode

newspapers, a laundry, a stage depot, a dance hall, hotels and plenty of vice. Gambling flourished. A madame got in trouble when she tried to stock her Quigley brothel with girls from Spokane.¹⁵ A launderer and cook named Wong "Yank" Ying was shot dead outside his tent in a racist vendetta.

Meanwhile, three miles from Quigley, Babcock built himself a mansion. He used 30 men at a time off the mine payroll to haul bricks, install hot and cold running water, and wire the house for electricity to come from the mine.

Then the bubble burst. In September, the flow of eastern funds clogged. First National Bank in Missoula stopped meeting the payroll. Liens were filed, and later lawsuits. The tent city folded up and hundreds of disappointed workers drifted away. Some say there never was a rich vein up Brewster Creek, that Babcock started it all by salting the mine: loading shotgun shells with gold nuggets and blasting them into the rock wall. Then, the story goes, he tricked a series of investigators by wining and dining them at Babcock Mansion while he switched rock samples on them. Finally, goes this version of the story, someone skipped the festivities, tested a true sample and blew the whistle. But others deny the swindle, saying the project simply exhausted the resources of investors \$50,000 short of starting production.¹⁶

Whatever the legend, Quigley's only legacy, besides the ruins, is a wagon road carved over the mountain from Rock Creek to Slide Rock. A sign at the cutoff, two miles below Rock Creek's Norton Campground, announces the historic site, luring the curious up the old road to the ruins.

Though Quigley's failure was the most spectacular mining event of the past century, gold miners prospected nearly every bend and branch of Rock Creek from Brewster Creek up to Basin Gulch. Few struck it rich. The first find on Rock Creek, in 1888 on the lower Welcome Creek tributary, yielded too little to pay.¹⁷ A richer placer strike in 1890 on upper Rock Creek was mined more successfully.¹⁸ And one of the richest goldfields in Montana was discovered three years later at the Basin Creek tributary just as plummeting silver prices were putting miners in the area out of work.¹⁹ The miners flocked to Basin Gulch, sluicing thousands of dollars worth of gold nuggets—and leaving the scars of their diggings along almost every coulee and brook. Old-timers in Philipsburg say the runoff from these mines made Rock Creek too thick to drink, but not quite thick enough to plow.

The allure of Rock Creek gold has never faded. Some \$30,000 in placer gold was taken along the Welcome Creek tributary between 1890 and 1911, according to a report by the U.S. Bureau of Mines.²⁰ Officially, the Bureau lists only \$500 in gold taken along Welcome Creek since 1911, but the report warns, "the extent of placer workings suggests a great deal more placer gold was produced than recorded."

Subsistence mining was common in western Montana during the 1930s, even without a claim. Kirby Matthew, an archeologist for the Lolo National Forest, says the Great Depression brought a whole new wave of jobless men to seek their fortune along Welcome Creek. "I'm sure there was a resurgence of mining up there in the 1930s," says Matthew. "You could file a little claim and find enough gold to buy groceries." The Cinnabar Cabin is one of the many relics of that era on Welcome Creek.

After World War II, gold prices fell and prospecting slumped, says Don Lawson, the former Bureau of Mines field agent.²¹ But in the past decade, new technologies have allowed miners to return to old sites.²²

"Legal Action Will Be Taken"—Modern Mines and Environmental Standards

The most notorious project of the 1970s was a cyanide leaching operation at Silver King Mine, a mile and a half up Sluice Creek from Rock Creek. (Cyanide is one of the most toxic ingredients used in processing gold.) The operation started in 1976 and was well underway before the state Water Quality Bureau got wind of it and closed it down, finding, among other violations, inadequate provisions for storing ore and wastes.²³ State inspectors had to ask for an escort from the Granite County sheriff after being turned back in their first attempt to enforce the mine closure. "Similar legal action will be taken against any future operation that threatens the environment of Rock Creek," Montana Governor Thomas L. Judge announced.²⁴

The Calgary-based operator of that mine, A Dale Fayram, then moved across Rock Creek to a placer mine on Quartz Gulch, where he was again shut down in 1987, after a settling pond burst. The contents spilled into a meadow beside a small channel of Rock Creek.²⁵ In 1990, Fayram was repairing the settling pond and hoping for permission to begin mining again in 1991.²⁶

But the most serious gold exploration of recent times is underway in the same area as the old Quigley mine, where higher gold prices, new technologies and heavy equipment may resurrect, if not the old ghost town itself, at least the dreams of the 19th-century entrepreneurs. Since 1986, three different companies have used giant drill rigs to explore the upper reaches of Brewster Creek.²⁷ The latest, Meridian Gold Company, is exploring several hundred claims.²⁸

In 1990, the company drilled some 20 exploratory holes and "it looks like we're going to be back next year," says geologist Robert Wheatley of FMC Gold Company, Meridian Gold's parent company in Denver.²⁹ Wheatley believes that gold inaccessible to the 19th-century miners might now be profitably extracted from the pyrite in the Quigley area. "Depending on what we find we hope to put in a mill nearby," says Wheatley. "But it takes time: the area is north facing and very steep. We want to drill enough for an accurate siting; when we build roads we don't want to disturb the environment any more than we have to."

Likewise, the 1980s brought heavy prospecting to a private claim on Hogback Ridge, which, along with Brewster Creek, upper Willow Creek and Williams Gulch, is expected to see heightened mining activity during the 1990s.³⁰

A flurry of activity at what would have been the biggest project in the drainage—the Bagdad Mine on Williams Creek—has, for the moment, ceased. In 1988, Mark V Mines (U.S.) Inc., a subsidiary of a Vancouver, B.C., company, built a mile of road, expanded an old tunnel and began taking out hundreds of tons of ore for sampling. The company found the gold deposit promising and applied for permission to develop the mine, which sits on Lolo National Forest land less than three miles up a rugged gulch from Rock Creek. The Williams Creek tributary is considered "highly vulnerable" to acid drainage, which could threaten Rock Creek with more of the heavy metals pollution already noted by the Environmental Protection Agency.³¹ The investigation of the Bagdad proposal was the most exacting ever begun on a Rock Creek tributary.

The Forest Service requested an Environmental Impact Statement "because of the mine's proximity to the sensitive resource values of Rock Creek and the potential for public controversy surrounding the proposed project."³² The mine plan included nine acres of buildings, tailings dumps and settling ponds, as well as six or seven

miles of new road across the Deerlodge forest and a several-acre storage area along the route. Forest Service officials asked for comment from federal, state and private agencies.

State officials and conservationists were concerned above all about longterm acid drainage from the mine causing increased cadmium and copper levels. The miners already had started sampling water on Williams Creek in June, 1987. But state officials and conservationists wanted more sampling, and at different seasons. They urged that fish populations be monitored before beginning the Bagdad project and during the entire life of the mine, in accordance with the recommendations developed by the Rock Creek Advisory Committee. Sediment and chemical levels should be monitored weekly, state officials determined, and the mining company should provide for longterm pollution control.

The Montana Department of Fish, Wildlife, and Parks also objected to the proposed new road, which would be used year-round by as many as 25 trucks a day hauling ore to Philipsburg for processing. Officials said the road would be a "disturbance to presently secure wildlife habitat" including elk and mule deer winter range.³³ Some 60 to 70 elk would be affected, state officials estimated. In addition, Fish, Wildlife and Parks officials suggested that ore trucks at least avoid hauling on weekends and holidays during the summer when recreational traffic is at a peak.

The U.S. Fish and Wildlife Service was concerned that the Bagdad Mine might disrupt peregrine falcons and bald eagles, both endangered species.³⁴ A report prepared by the Lolo National Forest concluded that while no peregrine falcons were likely to nest near the site, eagles do nest nearby, feeding on the elk and deer that die in winter. But the report concluded that even if this food supply were disrupted, the eagles would find plenty of deer and elk on adjacent ranges.³⁵ (State officials complained that the Forest Service seemed to consider the displacement of elk insignificant.)³⁶

The Clark Fork Coalition concluded that the information provided by Mark V was inadequate to evaluate potential impacts. Mark V provided "lots of raw data with little relevance to the project," according to Bruce Farling.³⁷

Then, early in 1989, Mark V withdrew its request: the company dissolved along with the project. "The reason was economics," says Jay Cornish. "I personally think there is a viable resource there

but you're going to need someone that has a lot more money to do the development and make sure the environmental work is done. Either that, or operate it as a small, hobby-type mine." Mark V tried to take the middle ground, Cornish says, and couldn't interest a larger company for capitalization. "Environmental critics accused them of ripping and running," he says, "but I think they were trying to do it right; they seriously took into account the sensitivity of working near a blue ribbon trout stream. They just didn't have the money."

Although it is gold that has lured the most prospectors to Rock Creek, it is sapphires that have provided the steady source of wealth. The precious stone that gave its name to the Sapphire Range was first discovered in Cornish Gulch during the early 1890s.³⁸ But the most profitable sapphire claim has been that of the American Gem Mining Company of St. Louis, about 24 miles west of Philipsburg on the Skalkaho Road. The Missouri company bought the claim in 1902 and hired young women from Philipsburg to sort the gems. Throughout the 1940s and '50s, high pressure hoses bit into the mountains, yielding gems for jewelry, watches and industrial uses. Today, a company called Gem Mountain Sapphires sells bags of earth from the site to tourists, who sift for their own sapphires.

Nearby, Skalkaho Grazing Company floats the only mining dredge in Montana on a lake the company dug in search of sapphires—an operation the state has not approved (as this report goes to press) and which conservationist critics say illustrates the difficulty of enforcement even in the neighborhood of a blue ribbon trout stream. The company bought the property and the mining permit in 1975, posted a \$3,000 bond, and has not updated the permit since bringing in the dredge. The Hardrock Mining Bureau in 1989 rejected an operating plan for the lake and dredge; unless the Bureau receives a \$26,000 bond on the 13 acres affected, it will be authorized to shut down the operation in 1991. By then, say the critics, spring flooding might already have contributed to an accident— with clean-up costs to be borne by the taxpayers.

Although few miners have struck it rich in Rock Creek, interest in Rock Creek mining has

grown in recent years.³⁹ "The protective effort certainly discouraged a lot of companies from looking there," says Don Lawson. "But basically there haven't been the indications for large deposits. There's been plenty of small mines in the last 40 years and that will continue."

Only two areas are off-limits to miners. The Lolo National Forest has withdrawn a total of 2,143 acres along the banks of Rock Creek from mineral activity; no new claims can be filed in these areas.⁴⁰ And in 1988, ten years after the Welcome Creek Wilderness Area was designated, it, too, was removed from mineral activity. The Anaconda-Pintlar Wilderness also falls into this category. (A ten-year grace period allows development of pre-existing mining claims in newly designated wilderness areas.)

For the rest, the Lolo National Forest has proposed immediate water quality monitoring to gather "baseline" data before further development on the most promising sites. And a "non-degradation clause" regulating waste discharge will be included in future mining permits issued by the state for the Rock Creek drainage.⁴²

Bruce Farling, of the Clark Fork Coalition, fears mining represents the biggest potential threat to Rock Creek. He blames prospectors, government officials and even conservationists themselves. "One big proposal up there could create a hell of a mess," he says. "And all these little guys—we don't know what they're doing. One yo-yo with cyanide can produce tragic results."

Monitoring, so far, is inadequate, Farling says. "You want to monitor as close as possible to the project. But the Deerlodge mainly monitors on the mainstem—on Rock Creek itself—and when you do that, how do you know who caused the pollution? Frankly, environmentalists have ignored mining up there. Logging is so much easier to watch."

Missoula wilderness activist Bill Cunningham agrees "At least with timber sales and roadless areas we have some handles," he says. "The Forest Service has some discretion to stop surface activities. But underground, it's hard to control. The frontier's gone and yet where mining is concerned, we're still operating under that mentality."

ENDNOTES

1. Orville Daniels letter to Steven Pilcher, chief of Water Quality Bureau, Montana Department of Health and Environmental Sciences, April 20, 1989. Also: U.S. Geological Survey Water Resources Division, Helena, memo, June 30, 1989 and Montana Department of Fish, Wildlife and Parks memo, "Rock Creek Metals Source Assessment," June 30, 1989.
2. The 1872 Mining Law states that "all mineral deposits in land belonging to the United States are free and open to exploration and the lands in which they are found are open to occupation and purchase."
3. Ted Antonioli, telephone interview, December, 1990.
4. Bob Neal, telephone interview, December, 1990.
5. General Accounting Office, "Federal Land Management: the Mining Law of 1872 Needs Revision," March 10, 1989. The report cites cases in which the law has been used to acquire land for ski condominiums, vacation houses and a downtown Las Vegas business. It also says the law has been used in phony gold-mining schemes that have bilked investors out of \$250 million in recent years. David Alberswerth, public lands director for the National Wildlife Federation, has called the law an "anachronism" whose basic principle is that "mining is the dominant use of public lands."
6. Each claim is a maximum 20 acres. A patent may contain many claims. The following figures were compiled from U.S. Forest Service records with the help of Ray TeSoro, geologist, Region One.

MINING PATENTS IN THE ROCK CREEK DRAINAGE

LOLO NATIONAL FOREST

Date	Number	Area	Acres
1908	1	Hogback Creek	20
1892-1903	9	Slide Rock	556

DEERLODGE NATIONAL FOREST

Date	Number	Area	Acres
1897-1904	3	Quartz Gulch	93
1912	2	Cornish Gulch	54
1900-1925	23	Basin Gulch	1658
1915	2	Stony Creek	77
1915	1	Emerine	120
1908-1939	9	Moose Lake	135
1926-1934	3	Senate Mountain	62
1892	1	Carp Ridge	41
1936	1	Frog Pond Basin	41
1926	1	Montana Prince	40
1929	1	Bitterroot Pass	21

7. Jim Sheldon, telephone interview, December, 1990.
8. Bruce Farling, personal interview, December, 1990.
9. Terrence Webster, hydrogeologist, Montana Department of State Lands, Reclamation Division, Hardrock Bureau. In 1990, the small miner's exemption was changed so that even small-scale placer miners must post a bond of up to \$5,000.

Endnotes

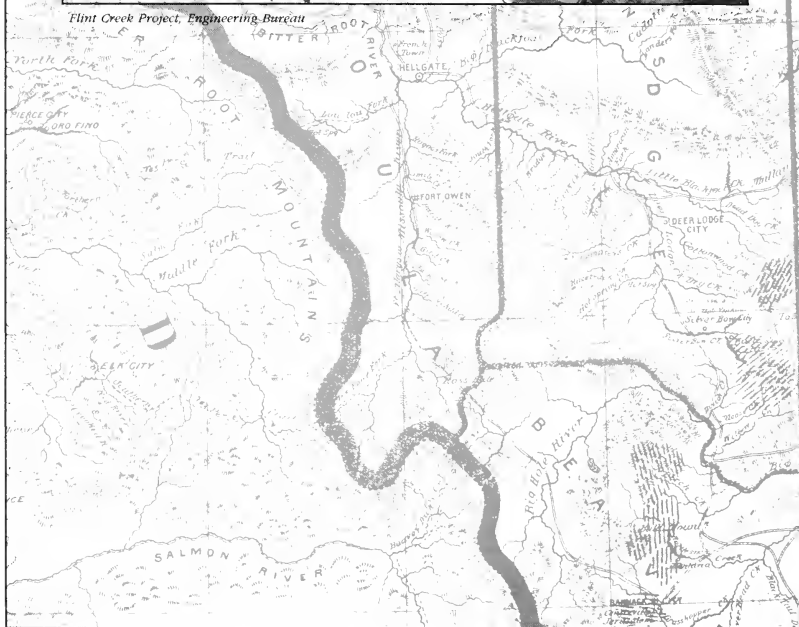
10. Olson, *Up the Creek*, op. cit., pp. 89-124.
11. Ibid.
12. *Missoulian*, Siria, May 31, 1964, op. cit.
13. Ibid. Brewster Creek flows into Rock Creek about ten miles upstream of Rock Creek's mouth.
14. Olson, op. cit.
15. Ibid.
16. Ibid.
17. *Missoulian*, Siria, May 31, 1964, op. cit. Pete Walback's was the first recorded find.
18. Ibid. One of the largest nuggets ever found in the state was taken from here. When gold was worth \$20 an ounce, it was valued at \$400 to \$500. (The largest nugget in the state was found on nearby Harvey Creek.)
19. *Missoulian*, Siria, May 31, 1964, op. cit. Sammy Watson discovered the Basin Creek gold field.
20. U.S. Bureau of Mines, Summary Report, Mineral Resources of the Welcome Creek Wilderness, Granite County, Montana, by Terry J. Close, 1982.
21. During World War II, the Army Corps of engineers drilled for gold at Quigley and the mouth of Welcome Creek, and found nothing. See Olson, op. cit.
22. Kurt Knievel, mineral management specialist, Philipsburg Ranger District, Deerlodge National Forest, interview, December, 1990.
23. *Missoulian*, June 19, 1976.
24. *Missoulian*, August 22, 1976.
25. The meadow belongs to rancher Bob Neal.
26. Letter from Michael Paterni, Philipsburg District Ranger, Deerlodge National Forest, to the Montana Department of Fish, Wildlife and Parks, March 14, 1988. Also: Kurt Knievel, minerals management specialist, Philipsburg Ranger District, Deerlodge National Forest, telephone interview, December, 1990.
27. This is the same area explored during the early half of the century through the Jumbo and Alps mines, according to Ron Wachsmuth.
28. Meridian Gold Company is a subsidiary of FMC Gold Company of Denver, Colorado. The operation is a joint venture with Nord Resources Company of Albuquerque, New Mexico, which owns or leases the claims.
29. Robert Wheatley, telephone interview, December, 1990.
30. Montana Department of Fish, Wildlife and Parks, notes on meeting with Lolo National Forest representatives, January 16, 1990.
31. Montana Department of Fish, Wildlife and Parks memo to Department of State Lands, October 17, 1988.

Endnotes

32. Letter from Greg Munther, acting district ranger, Lolo National Forest, to Montana Department of Fish, Wildlife and Parks, March 3, 1989.
33. Letter from Jerry Wells, regional supervisor, Montana Department of Fish, Wildlife and Parks, to Constance M. Cole, permit coordinator, Hard Rock Bureau, Reclamation Division, Department of State Lands, Oct. 17, 1988.
34. U.S. Fish and Wildlife Service memo, April 26, 1988.
35. Biological evaluation for the proposed Bagdad Mine, prepared by Mike Hillis, wildlife biologist, Lolo National Forest.
36. Letter from Jerry Wells, regional supervisor, Montana Department of Fish, Wildlife and Parks, to Orville Daniels, January 10, 1989.
37. Letter from Bruce Farling, Clark Fork Coalition, to Kit Walther, Hardrock Bureau, Reclamation Division, Department of State Lands, October 31, 1988.
38. Olson, op. cit.
39. Deerlodge National Forest notice published in newspapers in January, 1989. The Deerlodge expanded its water quality monitoring program to accommodate the increased activity, according to the notice.
40. Dave Stack, Missoula District Ranger, Lolo National Forest, telephone interview, November, 1990.
41. Ibid. Skip Rosquist, Lolo hydrologist, suggested sharing the costs and responsibilities with the Montana Fish, Wildlife and Parks Department.
42. Montana Department of Fish, Wildlife and Parks, "Rock Creek Fisheries Management Plan," 1989-1994. Refers to classification by the Water Quality Bureau, Montana Department of Health and Environmental Sciences.



Flint Creek Project, Engineering Bureau



CHAPTER THREE

"Garden of Eden"

Working and Playing the Land

"Everyone Ate Off the Land"—Hunting and Grazing

When people in Florida, Connecticut or Arkansas talk about Rock Creek—and they do—chances are they're not debating logging, mining or ranching; they're talking riffles and rainbows and salmon flies. They're talking camping and hiking. They're talking vacation. Among its residents and neighbors, Rock Creek country has long been appreciated for fishing, hunting and trapping, though when these became "recreation" rather than survival is impossible to pinpoint. Settlers often sold their cattle to pay the bills while feeding their families by hunting and fishing—even when it wasn't legal. Ken Handley, whose family arrived after World War II, told Rock Creek historian Darlene Olson, "everyone ate off the land... It wasn't poaching, it was survival."¹

Prospectors and trappers arriving during the 1860s found huge herds of deer and elk in the Rock Creek area, and the homesteaders who followed them reported abundant bighorn sheep, even more bighorn sheep than deer during the 1890s.² Peter Walbeck, who settled at the lower end of Rock Creek in 1887, hunted commercially with a partner for two years, selling dressed venison for 11 cents a pound.³ One winter, Walbeck reported killing 32 deer, and he said others took more. The massive destruction of Rock Creek wildlife culminated during the winter of 1889-1890, when four men arrived seeking coyotes and fur. They brought no traps but plenty of poison; deer, clustered in the low country to escape harsh weather, were the victims. The men poisoned 300 to 400 deer, while taking only a small number of pelts.⁴

Already, the state recognized a need to protect game animals. The first closed season on big game in Montana was in 1872—the same year Yellowstone National Park was created—and by 1895, Montana had a Fish and Game Board. Hunting restrictions peaked in the Rock Creek area in 1913 when elk season closed completely and the take of deer was limited to one buck per hunter.

But hunters weren't the biggest threat to wild ungulates at the turn of the century; domestic livestock were. The foothills of the Rock Creek area

were most heavily grazed from 1880 to 1935.⁵ Feral horses and mules roamed the ranges all year then, and cattle and sheep spread out across the pasturelands from the time the snow melted in spring until snow covered the forage in early winter. When the elk, deer and moose came down to the foothills in search of easy winter graze, they found little left. Streams were badly damaged, their banks trampled, their fisheries destroyed. By 1910, all game was scarce.⁶

In 1911, the state transferred 60 Yellowstone Park elk to the Skalkaho area of Rock Creek, and more transfers followed in 1912 and 1952.⁷ Most of the elk in the Rock Creek drainage today are descended from these transfers.

By 1935, deer again thrived and elk were on a rebound. But the Forest Service estimated only three or four moose left in the Rock Creek area in the winter of 1935-6, and bighorn sheep were also on the decline.⁸ It wasn't until the 1950s that all these populations appeared to be on the mend, and hunting regulations were relaxed.⁹

The revival of game populations was encouraged by new restrictions on livestock grazing on public lands. Sheep grazing began to decline in the 1940s on the upper basin lands of the Deerlodge Forest, and horses were banned by 1950.¹⁰ At the same time, the Deerlodge reduced the number of cattle on its allotments and shortened grazing seasons. For example, on the so-called Stony allotment, grazing has been halved from 217 cattle in 1938 to a low of 75 in 1960 and 100 since 1969. On the West Fork Butte allotment, grazing has been reduced by about a fifth, from 242 in 1950 to 200 since 1969. Starting in 1940, the Forest Service also adopted new rotational grazing practices.

The rest deferment system divides allotments into at least three sections, which are grazed in sequence each season. The rest rotation system, initiated for the most fragile pastures in 1961, allows at least one section on each allotment to rest for an entire season. In 1991, three of nine allotments in the Deerlodge National Forest were managed on the rest rotation system, while the remainder were on the rest deferment system.¹¹

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The other public land managers of the upper basin—the Bureau of Land Management (BLM) and the Montana State Lands Department—have followed similar management procedures. The Lolo Forest too has adopted rotation methods, though in 1990 cattle grazed on only one Lolo allotment in the drainage.¹²

Livestock grazing on the Lolo declined as ranches in the canyon were subdivided, starting in the 1960s.¹³ Fewer than a dozen cattle grazed on the “ranchettes” of the canyon in 1990, and their purpose was mainly to keep the grass short. By contrast, most of the private land of the upper basin is still ranched—and many of the ranchers still depend on public land allotments.¹⁴

“We try to develop a balance of uses between livestock and game,” says Larry Newman, who oversees BLM grazing allotments in the upper Rock Creek drainage. “We move the cattle when the grass gets down to a certain length, and we try to adjust for a set number of wildlife. But some of the ranchers are saying where there used to be 1,000 ungulates there are now 2,000 and we keep reducing the livestock use.”¹⁵

Much of the ranchers’ cropland is irrigated for hay, and where there is hay there are larcenous elk: Most elk and deer winter on privately owned lands. Indeed, most of the open land of the upper basin is in private hands. As a 1973 state wildlife report noted, there is “no easy solution” to grazing conflicts; reducing grazing on public ranges can cause overgrazing on the crucial privately held winter ranges.¹⁶

Bob Neal’s family ranches 7,000 acres of its own land about 40 miles upstream from the mouth of Rock Creek and grazes another 5,000 acres of public land. His BLM allotment was under review in 1990, to determine whether grazing should be further curtailed. “We’ve invested in water development and cross-fencing on this allotment,” says Neal, “and I certainly believe they should leave it as is.”¹⁷ On the other hand, Neal says public lands account for only eight percent of his “animal unit months”—his total volume of grazing. And he agrees with public land managers that the rotation systems keep the public lands healthier. “We’re doing a better job as stewards,” Neal says. “The Forest Service, BLM and state lands are all under better management than 20 years ago.”¹⁸

Neal has had his share of run ins with wild-

life during 39 years of ranching in the Rock Creek basin. “We do have more hunters and recreationists in the field and they’re having their effect,” Neal says.¹⁹ He grumbles that the bighorn sheep herd sharing his range numbered 300 in 1990, despite a 1975 agreement with the state Fish and Game Department that it wouldn’t exceed 125. But he, like most Rock Creek residents, would rather have too many than none at all, which at one time seemed likely.

“The mountain sheep is a relatively scarce species in the United States and it would seem wise to manage even small herds to prevent eventual extinction,” state officials warned in a surprisingly prescient 1957 report.²⁰ In 1960, biologists counted 130 bighorns in a native herd 15 miles west of Philipsburg, but five years later, disease and overcrowding nearly wiped them out.

Bighorns like open country, plenty of bunch grasses and, for security, rocky crags. A vertical cliff topped by a grassy knob is a bighorn’s dream, and the upper Rock Creek area is blessed with just such terrain. But in the mid-1960s, the remaining Rock Creek bighorns had to compete with huge flocks of domestic sheep, and both species suffered on badly overgrazed range. In addition, bighorns are thought to be cursed with a severe Malthusian regulator; rather than spread out when overcrowded, a herd merely plunges toward extinction.²¹

By the time the Rock Creek Advisory Committee was meeting in the early 1970s, only about a dozen bighorns remained in the Rock Creek drainage.²² The state Fish and Game Department and the Forest Service then joined forces to revive the herds. In January, 1975, they launched a reintroduction program with 29 bighorns from the Sun River range. Once again, with careful maintenance and dispersion, two herds are thriving—one in the upper basin and one in the canyon, where they can be seen grazing placidly by the roadside when the cottonwoods are turning colors. By 1990, the bighorn sheep population in the Rock Creek drainage was so healthy that state officials were trapping them for transplant elsewhere, and of ten rams taken by hunters, six made the Boone & Crockett record book.²³

Trampled streambanks and overgrazed pastures can still be found, but in the Rock Creek drainage, cattle and wildlife—even the finicky bighorns—are thriving as neighbors on the land. Unfortunately, land isn’t the only scarce commodity: ranchers and sportsmen also compete for water.

A Wealth of Water—"Murphy Rights" and Other Claims

Fishermen and wildlife managers want Rock Creek's waters to flow freely from the Anaconda-Pintlars to the Clark Fork River. They fear that "dewatering"—from such consumptive uses as agriculture or mining—may exacerbate drought, pollute the stream and harm a priceless natural fishery.²⁴ Throughout Montana, the battle between "instream flow" advocates and the ranchers who need water to do business erupts emotionally during every biennial legislative session.

But Rock Creek has been afforded special protection. Its scenic and recreational values were recognized in 1959 when the river was designated a blue ribbon trout stream, and that in turn helped prompt protection for its "instream flow." In 1969, the state legislature authorized the Montana Fish and Game Commission to recognize a right to "instream water flows" on Rock Creek and eleven other blue ribbon streams.²⁵ Usually, water rights entail a diversion—someone must take water out of a stream for such purposes as irrigation or mining. But these water rights, known as "Murphy Rights" after the sponsor of the bill, were intended to accomplish the opposite. They were to keep water in the stream for the benefit of fish and other wildlife.

The Murphy bill did not specify exactly how much water was to be protected in each stream. That came later, after the Montana Water Use Act of 1973 called for a new permit system and legislation known as Senate Bill 76 in 1979 authorized a statewide accounting and adjudication of all existing water rights.²⁶ Under this process, the Department of Fish, Wildlife and Parks claimed some of the "unappropriated" waters on Rock Creek and the eleven other blue ribbon trout streams. (Unappropriated waters are those not already claimed for other uses.) For Rock Creek, rights claimed by the Department apply to the entire stream, with slightly different provisions for two sections: one for the 14 miles from the mouth to Ranch Creek, the other for the 42 miles from Ranch Creek to the headwaters.²⁷

The ranchers, too, of course, have water rights on Rock Creek. The earliest irrigation rights date to the 1870s.²⁸ By 1900, some 30 ranches had established a total of 77 water use rights for irrigation of the Rock Creek basin.²⁹ For ranchers, the water rights adjudication process was chaotic and scary; it seemed to many that in this case, Murphy's

Law applied as much as Murphy Rights: whatever could go wrong did go wrong.

Each rancher had to submit all water use claims to the Montana Water Court for judgment, and by the April 30, 1982 deadline, most had done so. The Montana Department of Natural Resources and Conservation assisted the Water Court by reviewing documents and aerial photographs and conducting interviews to "verify" claims; soon the Department began to complain that many claims were inflated and inaccurate. John Westenberg, water rights technician for the Department's Missoula office, argued that the Water Court should put off making any decree until it had more accurate information. In the lower Rock Creek basin, he wrote, subdivision had created a "hodge-podge" of claims "that could lead to future water disputes."³⁰

Such complaints spurred the Department of Fish, Wildlife and Parks to file with the Montana Supreme Court challenging the judgments—or decrees—issued by the Water Court.³¹ The Department eventually settled out of court, agreeing to limit its investigations to issues of accuracy and completeness, and let the Water Court use this information to make its own judgments.

Throughout the Rock Creek basin, 708 claims were filed.³² (Of these, 278 were for irrigation, 244 for stockwater, and 47 for mining.)³³ Only two field investigations were conducted. These were for two of the 61 largest irrigation claims.³⁴ But almost 450 objections were filed. Most were by ranchers who challenged mistakes or changes made in their claims. These have yet to be settled.

Despite the years of squabbling over water rights, Rock Creek ranchers are the envy of many of their neighbors. "In Rock Creek," says Flint Creek rancher Ed Lord, "there's more water than land that can use it." Indeed, the ranchers of Flint Creek are supplied with enough Rock Creek water to irrigate 18,000 acres of their own crops. The Flint Creek Storage project, on the East Fork of Rock Creek, was built in 1935 to divert water over the divide.³⁵ But Rock Creek ranchers still fear shortages. It is "scary for the agricultural person" to see water anywhere in the state reserved for instream flow, says rancher Lorraine Gillies.³⁶

Likewise, it is scary for fisheries biologists to contemplate the future, even for a blue ribbon trout stream. The staying power of Murphy Rights has yet to be tested, theoretically, the courts can overrule them in favor of "more beneficial" uses for the water. In addition, Murphy Rights take priority only

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over other rights with "junior status," that is, rights that were developed later, after the 1969 Murphy Right initiation date. The State Water Plan's "in-stream flow discussion paper" acknowledges that Murphy Rights have "relatively junior status" and are thus "ineffective in maintaining stream flows when there is not enough water to satisfy all water uses."

Pulling Weeds—A "Show-me" Place

The ranchers of Rock Creek are quick to point out the benefits of their stewardship. They are especially proud of their pioneering efforts to control noxious weeds—the non-native plants that can threaten native species, choke pasturelands and strangle fisheries and waterways. Knapweed, Canadian thistle and musk thistle are the major culprits along upper Rock Creek, where roads, traffic, and abandoned mine dumps have encouraged proliferation. The Montana Department of Agriculture sets aside funds to help ranchers meet state weed control regulations.³⁷ But as one rancher put it, the state has to rely on "peer pressure" to get weed control programs off the ground.

In 1985, Granite County took the lead, obtaining a \$56,000 grant from the Soil Conservation Service to become a "show-me" area for weed control. Rancher Esther McDonald hired an engineer and together they walked the public and private lands of the county, mapping each species of noxious weed. Then, they gathered the landowners—including representatives of the Bureau of Land Management, the Forest Service, the Department of State Lands, and Montana Rail Link—described the problem and outlined a five-year strategy.

"We didn't ask people to spray," says Ms. McDonald. "They could try biological control, different types of cultivation, they could pull the weeds if they wanted." Eventually the project bought sprayers and backpacks and, after setting up a hotline and alerting people to possible allergic reactions, rented a helicopter to spray Tordon on pasturelands. Today, the county is divided into nine weed control districts and the Granite County Weed Control Board continues to lend out the spraying equipment. Jim and Lorraine Gillies have organized several ranchers in the Rock Creek basin to apply for further grants. The public agencies are developing weed control programs, too, though liabilities involving the use of chemicals slow their progress.

Esther McDonald is most concerned about Rock Creek Canyon. "That area is not nearly so pretty any more with all those weeds," she says. "Somebody ought to take the ball and clean out those weeds, if you want to call it a blue ribbon trout stream." Between absentee landowners and Forest Service holdings, canyon residents say weed control so far has been a lost cause.³⁸ But Lolo Forest ecologist Jack Losensky says it is coming. Foresters met in February, 1991, to select weed control targets for Rock Creek:

In the Valley of the Moon, 80 acres were suggested for treatment of knapweed. At the old Puyear Ranch, 60 acres were suggested for treatment of knapweed and musk thistle. And at the Rock Creek and Hogback Cabin sites, spot treatment of surrounding open meadows was suggested for knapweed, musk thistle and Canadian thistle. "We'll be asking for input from the people in the area," says Losensky. "We'll probably choose one of these targets for 1991."

Snakes, Floodplains, and Easements— The Canyon Grows

Weeds aside, the contrast between the upper basin and the canyon is immediately evident to anyone driving the length of Rock Creek. The 333 parcels of privately owned land in the Rock Creek drainage can be divided roughly into the upper basin ranches, typically larger than 3,000 acres, and the subdivided lots of the canyon, typically smaller than five acres.³⁹ Despite the land and water battles of the upper basin, it is the development of the canyon that has caused the greatest uproar.

The most outrageous development controversy to date arose at the mouth of Rock Creek from reptiles and neon. People who drove the highways of Idaho, Washington and Montana during the 1960s were familiar with the gaudy billboards advertising the "Snake Pit" in State Line, Idaho. Besides hosting the "Snake Pit," State Line was known for its bars, cheap cigarettes, strippers and massage parlors, according to the *Missoulian*.⁴⁰ The reptile business there was suffering. So in August of 1977, Ted "Tex" Cordell decided to move his "Snake Pit" to Montana, "the only state left where you can erect a readable sign off a secondary road or freeway without having any problems," he told the *Missoulian*.⁴¹ Unfortunately for him, the land he found available in Montana was on Rock Creek; where others saw a blue ribbon trout stream, Cordell saw only a freeway exit.

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"I'm going to put up a \$30,000 electric sign with a big hand pointed at the Snake Pit," Cordell told the *Missoulian*. "It'll have a flasher, too." Never mind the 350-pound python, the pygmy rattlers, the Tegue lizard, or the eight-foot replica of a Bigfoot skeleton; neon shouting from the mouth of Rock Creek was more than many western Montanans could bear.

The Montana Wildlife Federation warned that increased traffic, over-fishing and campground congestion would follow the reptiles to Rock Creek.⁴² Richard Sheridan, an assistant professor of botany at the University of Montana, told the *Missoulian* such a development on Rock Creek would be an "abomination . . . like wrapping your garbage in the Dead Sea Scrolls."

But John Crowley, director of the Missoula Planning Board, reminded critics the county had no land-use controls in the Rock Creek area. Tex Cordell needed only meet state health regulations, obtain a roadside menagerie permit from Fish and Game, and he was in business. Beside the Rock Creek Lodge, Cordell built his reptile zoo and gift shop. He agreed to forego the flasher, and for nearly five years he scraped along, becoming a "generally accepted part of the Rock Creek scene," according to the *Missoulian*.⁴³ But when at age 82, Cordell sold the Lodge and took his reptiles on the road again, he expressed his bitterness about the environmental sensitivity surrounding Rock Creek. "Everything I've done in this state has been tough," said Cordell. "I don't think the Montana people want any business."

Even if they don't want reptile zoos, they do tend to favor private cabin homes nestled on the banks of blue-ribbon trout streams. The first ranch in the Rock Creek canyon was subdivided in the 1960s. In 1970, the state noted a potential for at least 1,000 home sites along the privately owned land within the Lolo National Forest.⁴⁴ Officials predicted rapid subdivision following the new interstate highway bridge across the Clark Fork River in 1971. They warned that coliform data was inadequate and sanitation regulations were needed. Fear of rampant subdivision, as well as Forest Service plans for expanded campgrounds, played a big part, along with logging, in launching the effort to save Rock Creek. In March of 1973, the Granite County commissioners issued a one-year moratorium on subdivision in Rock Creek.⁴⁵

"Back then there were no subdividing regulations at all," says Granite County Commis-

sioner Frank Waldbillig. "If they could bring in a plat that would fit in the plat book we were told we'd get in trouble if we stopped them. But we knew there was legislation in the mill that would put some sensible restraints on subdividing. For the ecological good, we imposed this moratorium—and surprisingly, no one challenged it."

One of the laws "in the mill" at the time—the Montana Floodplain and Floodway Management Act⁴⁶—has helped limit growth both in the Granite County portion of the canyon and the much smaller Missoula County portion. The Act identifies lands that are unsuited for development because of flood hazards. (Structures built in a floodplain are vulnerable, the reasoning goes, and they may also displace water, thus raising flood levels.) Under the Act, Rock Creek and its major tributaries were mapped as far upstream as the confluence of the Middle Fork; the maps indicate the boundaries of the 100-year floodplain and the "floodway fringe." Neither the floodplain nor the fringe may be developed in ways that might influence 100-year flood elevations. To avoid such developments, a permit is required for any activity that may affect flooding.⁴⁷

Granite County Planner Mike Kahoe has never issued a permit for construction within the Rock Creek floodplain. "It would be possible to get a permit by raising the level of the land," says Kahoe. "But nobody does that; it's simpler just to move out of the floodplain."⁴⁸ The floodplain regulations limit residential growth because they discourage construction close to Rock Creek and away from the road, where most people would prefer to live.

In addition, both Missoula and Granite Counties have adopted ordinances requiring soil tests and permits before construction of any sewage system.⁴⁹ The problem, as always, say health officials, is enforcement; sanitarian Pat Higgins alone covers three rural counties, including Granite.

Efforts to control growth in the canyon through zoning have consistently failed. The Montana Land Reliance reported in 1990 that most Rock Creek residents oppose zoning, though, ironically, they also oppose further subdivision.⁵⁰ The alternative promoted by the Reliance is conservation easements. A landowner can protect a piece of property forever by donating or selling an easement to such agencies as the Reliance, the Nature Conservancy, the Forest Service or the Rock Creek Advisory Council. An easement may restrict anything from subdivision and the number of buildings

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allowed to the introduction of non-native species and the use of pesticides. Unlike a covenant, which is a contract between buyer and seller,⁵¹ easements, enforced by a third party, become a deed restriction and, unless otherwise specified, remain with the land in perpetuity. The Nature Conservancy already holds an easement in the Rock Creek drainage on an 80-acre parcel just below the bridge from Phillipsburg. The Forest Service holds another on an 84-acre parcel on Ranch Creek. And the Montana Department of Fish, Wildlife, and Parks holds a third on the 130-acre Spring Creek Woods property. The Montana Land Reliance is helping additional landowners convey conservation easements to the Rock Creek Advisory Council.⁵²

The Rock Creek Advisory Council also owns outright the 240-acre Handley Ranch, purchased in June, 1990, for \$385,000. And the Council joined with the Montana Department of Fish, Wildlife and Parks in November, 1986, to purchase the 130-acre Spring Creek Woods property for \$210,000.⁵³ In 1990, the Council began developing longterm management plans for the conservation of both parcels.

Other factors have helped limit subdivision on the private lands of the canyon. Residential development largely ends at the confluence of Ranch Creek, where electric service ends. And Rock Creek is too far to be a bedroom community for a city the size of Missoula; the unpaved road is often impassable during winter storms. Building in the Rock Creek canyon continues at the rate of about three homes a year, residents say. About a tenth of the homes are only inhabited seasonally, and many of the rest are occupied by retirees.

"We Are Going to Have to Restrain Ourselves"—Wild and Scenic Rivers

Rock Creek is also being considered for protection under the Wild and Scenic Rivers Act of 1968. The law provides for the "protection and enhancement" of three classifications of river.⁵⁴ A "wild" river is undeveloped and generally accessible only by trail through a roadless area. A "scenic" river is largely undeveloped but accessible by road in some places. A "recreation" river "could be through downtown Chicago," as one advocate explained: it is readily accessible by road, has some developed shoreline and may have been dammed or diverted. Rock Creek is being considered for designation under the "scenic" and "recreational" categories.

Rock Creek was first considered for such designation in 1972 by both the U.S. Congress and the state legislature. Although both bills died, it is worth quoting from the eloquent testimony given at a Congressional hearing called by Senators Lee Metcalf of Montana and Frank Moss of Utah. In his introduction to the August, 1972 hearing in Missoula, Senator Metcalf called Rock Creek a "storied" stream, "one of Montana's most familiar, most important, most significant resources."⁵⁵

Dr. Gary Eudaily described playing on Rock Creek's banks at age five, tied to a huge cottonwood tree in front of the family cabin. He spoke of salmon fly hatches and "royal bull elk." Then he gave a litany of Rock Creek's degradation, from the loss of the bighorns to mechanized logging, overfishing and uncontrolled subdivision. Other sportsmen, such as Donald Aldrich of the Montana Wildlife Federation, were equally passionate. "We have in our society people who would log the Garden of Eden and release their waste in the very source of our waters. In the past a small but vociferous element of our society and a segment of the leadership in our agencies have influenced management decisions in favor of commodity productions and a life style our resources cannot support." Cecil Garden, president of the Montana Wilderness Association, said driving up Rock Creek "is almost like (attending) a wake, because in my mind's eye I can see how obviously it at one time was, and I can see what is happening. . . somehow or another, unless we are going to lose these treasures, these tremendous places, we are going to have to restrain ourselves."

Opponents were just as outspoken. "We have tried to read the bill and understand its meaning," said George Mungas, of Phillipsburg. "Many of us fear and distrust some of the implications we receive from the text. We fear the word condemnation." Ed Lord, representing Granite County KEEP (the Committee for Environmental and Economic Protection), argued Rock Creek would be better protected through local laws. And he joined John Stevenson, president of the Missoula Chamber of Commerce, in calling for further Forest Service studies before proceeding with legislation.

Those studies were underway in 1991. In the mid-1980s, a little-known provision of the Wild and Scenic Rivers Act came to light; Section 5-D requires all federal land-holding agencies, such as the Forest Service and the Bureau of Land Management, to identify rivers that should be protected under the

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law. A Washington-based conservation group called American Rivers soon began appealing Forest Plans that failed to do so. "The Forest Service is institutionally very committed to Wild and Scenic Rivers now," says Tom Cassidy, a spokesman for American Rivers. "They see it as one of their success stories."⁵⁶ American Rivers finished intensive work with public agencies in Oregon and Washington in 1990, and planned to turn its attention to Montana in 1991.

"Wild and Scenic Rivers is the best way that federal law provides to protect a river and its adjacent lands," says Cassidy. "It gets away from reliance on administrative discretion and into statutory protection. This is the only statute on the books, for example, that prevents hydro-dams."

Under Section 5-D, public agencies must first evaluate whether a river is "eligible" for classification as "wild," "scenic" or "recreational." Once eligibility is determined, a river must be maintained in its present classification while "suitability" for Wild and Scenic River status is determined.⁵⁷ Finally, as before, an act of Congress is required to designate a river Wild and Scenic.⁵⁸

The Deerlodge National Forest already has determined that Rock Creek is the only river under its jurisdiction that is at least partially eligible. The Deerlodge Forest Plan published in 1987 classified the stretch of Rock Creek between Gillies Bridge and the Lolo National Forest Boundary as a "recreational" river.⁵⁹ Cassidy believes the Deerlodge may eventually classify more of its rivers as eligible and more of upper Rock Creek as eligible.

The Lolo National Forest is considering classifying all of its portion of Rock Creek as a "scenic" river. Lolo officials expect to complete an eligibility determination by the end of 1991.⁶⁰

The cost of designating Rock Creek Wild and Scenic would be minimal in terms of lost resources, according to Deerlodge Forest planner Ron Hanson, and the dollar value in tourism could be substantial. Cassidy notes that though the law strictly protects public lands along a river corridor, it does not lead to federal land-use controls on private lands. "The law is very solicitous of local jurisdictions," says Cassidy. "And despite the common concern for diminishment of the tax base, it generally increases the tax base because the value of streamside acres increases." The Granite County Commission, though not yet committed to Wild and Scenic River designation, has indicated an interest in exploring it

"Love It So Dear"—Restoring the Fishery

Most people come to Rock Creek for the day, or perhaps a few days in a Forest Service campground. They come for the scenery and sport, above all, fishing.

Rock Creek has been a sporting destination at least since 1926 when the Forest Service built the present road from the creek mouth to Philipsburg, and sprinkled it at five mile intervals with large campgrounds.⁶¹ Model T's were followed by pick-ups and station wagons and, with the 1971 interstate highway bridge across the Clark Fork, the modern behemoths: camper-trailers and recreational vehicles. Suddenly, traffic, dust, and even dwindling numbers of fish were at issue.

The decline in the size and number of fish during the early 1970s was one of the growing pains associated with a return to natural fisheries. Indians who fished with baskets and early settlers who used flies reported abundant trout in Rock Creek before the turn of the century. Peter Walbeck, who came in 1887, said he and a friend averaged 80 pounds of fish each on ordinary flies in four hours.⁶² They sold about 500 pounds of Rock Creek trout a week at 25 cents a pound. But when fly fishing became a popular sport after World War II, the state Fish and Game Department found it necessary to stock Rock Creek. Until 1961, as many as 25,000 rainbow trout were planted each year. Then the state turned back toward natural management. The trout planting program tapered to a close in the early 1970s.

Creel limits, though, didn't taper off to match, and the natural fisheries declined under heavy pressure. Discouraged by fewer and smaller trout, fishermen stopped coming. The number of anglers dropped from 12,268 in 1959 to fewer than half that, 5,816, in 1978. "We harped for years about limits on fish being too high," says Robert Bassett, former owner of the Elkhorn Guest Ranch. "Finally, Fish and Game came through."

In 1979, the state reduced creel limits, imposed size and tackle restrictions and designated a portion of the creek for catch-and-release fishing only.⁶³ The fisheries rebounded, and so did the anglers. Many switched voluntarily to catch-and-release. But the popularity of Rock Creek soon brought renewed gripes about crowds.

"It is beautiful. It is wonderfully trouty. And its fish are magnificent." Paul G. Quinnett wrote in *Sports Afield* magazine after a July, 1984 fishing ex-

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pedition. But the traffic was such, wrote Quinnett, that dust "covered everything for 20 yards on either side of the road. . . . From every point where you could see a big pool or stretch of boulder-made pockets of holding water. . . . tire marks pressed against the berm, and from these. . . . a small, well-beaten path led down the slope to the water's edge like greasy thumbprints on a clean glass."

Quinnett was seeing the fishing frenzy at its height: summertime traffic on the Rock Creek road peaked in 1984 and has fallen off considerably since then.⁶⁴ But his conclusion that "people can hold something so dear they crush the beauty from it" echoed in the turf war that was just beginning.

Row Versus Wade—The Great Western Fishing Controversy

Popularized on postcards as "row v. wade," the battle between anglers who float the creek and anglers who wade the creek has been every bit as heated as the abortion battles summed up in the court case of *Roe v. Wade*. The first fishing raft was reported on Rock Creek in 1978 and as the popularity of float fishing grew, anglers on the banks and in the water began complaining: The river wasn't big enough for both, they said. Float fishermen clogged the road with raft-hauling trailers, choked the Rock Creek canyon residents with dust and, at the peak of the salmon-fly hatch in June, cluttered the pristine waterway with as many as 100 boats an hour. Above all, the rafters, no matter how polite, spooked the trout. "Fishing success fell to zero for periods ranging up to one hour after raft passage," one angler from Oregon griped to the Fish, Wildlife and Parks Department.⁶⁵

By 1985, the Lolo National Forest found it necessary to restrict commercial rafting. The Forest Service issued a three-year permit to four rafting outfitters organized as the Clark Fork Float Fishing Outfitters Association. Three years later, the state and the Forest Service began a joint review of floater-wader conflicts that demonstrated just how complicated the problem was becoming.

A 1988 state survey showed that, since the Forest Service began requiring permits, commercial floating had dropped to half its previous level. But float fishing as a whole had more than doubled in two years to account for 10.4 percent of all the anglers on Rock Creek.⁶⁶ In other words, the majority of boats on Rock Creek were not subject to the commercial permit process: they were private.

A 1988 Forest Service survey showed that most contacts between waders and floaters were pleasant, yet most respondents felt floating harmed the quality of fishing. They wanted floating banned.⁶⁷

As the time came for the Forest Service to revise guidelines and renew permits, the rhetoric heated up. Paul S. Roos, one of the outfitters, pleaded with officials not to set a "precedent of preference for one segment of the population" by further restricting floating.⁶⁸ Bankside anglers, meanwhile, vented their disgust with rafters; the same Oregonian who timed each floating disruption vowed he would give up and go to Idaho "where one is not forced to endure this sort of harassment."⁶⁹

Missoula District Ranger Dave Stack struck a temporary compromise in 1988, issuing one-year permits to the outfitters and for the first time, restricting the commercial floating season. He urged private boaters to observe the same limits voluntarily. "I believe that the conflict between bank/wade anglers and the floaters is real," Stack wrote, "but I also believe there is an opportunity to minimize conflict through better seasonal control of commercial floating and voluntary observance of restricted floating seasons by the recreation (unguided) floaters."⁷⁰ The season would end June 30 or when the water flow dropped to 700 feet per second, Stack decided, whichever came first.

No matter how low the water dropped, passions still ran high. In 1989, a rafting guide offended by a sign explaining the new restrictions told a Forest Service employee, "One day some floater will throw that sign. . . into Rock Creek. But it won't be me."⁷¹ From the other side, a resident wrote: "A worse decision could not have been made. . . . Even if you are a slob outfitter, who arrogantly ignores the rules, you can get renewed."⁷²

Stack nevertheless stayed his course and in 1990 issued five-year permits to the same four outfitters, while decreasing "boat days per year" to 200 from 300 and eliminating the flow provision—to end the season each year on June 30.

Despite threats by visitors to flee the floaters, the number of out-of-staters on Rock Creek rose to 28 percent of all anglers in the 1988 survey, up from 24 percent in 1986 and well above the 1961 level of 10 percent. And though fishing pressure remained well below the record levels of the trout-stocking 1960s, the state estimated in 1989 that anglers spend \$1.2 million a year on their Rock

Working and Playing the Land

Creek sport."⁵ (The total recreational value of Rock Creek is estimated at \$3.7 million a year.)⁶

Whatever the balance of floaters and waders, the overall catch during the 1980s remained fairly stable in number and size, fluctuating with years of

drought and abundant water. A state creel survey published in 1989 concluded the "current restrictive creel and tackle regulations are contributing to... an improved and quality fishery and should be continued."⁷



Flint Creek Project, showing full reservoir. Engineering Bureau

ENDNOTES

1. Darlene Olson, *Up The Creek, History of Early Settlers on Rock Creek, Bonita & Quigley*, p. 76. Handley's family bought a 245-acre ranch on Rock Creek in 1940.
2. Montana Fish, Wildlife and Parks Department, Job Progress Report, Survey and Inventory Project, Deerlodge Unit Recheck, July 1, 1972 to June 6, 1973, background.
3. *Missoulian*, May 31, 1964, article by Carl Siria, former Bonita District Ranger.
4. *Ibid.*
5. Montana Fish and Game Department, Job Completion Report, Investigations Report, Deerlodge Unit, May 1, 1956 to April 30, 1957, background. See also Darlene Olson, p. 21, on the "continual feud" between the Forest Service and settlers over boundary lines and livestock trespassing on Forest Service land.
6. Montana Fish, Wildlife and Parks Department, Survey, July 1, 1972 to June 30, 1973, op. cit.
7. Montana Fish and Game Department, Job Completion Report, May 1, 1956-April 30, 1957, op. cit. An unknown number were transferred in 1912; 45 were transferred in 1952.
8. *Ibid.* Cites study by Bonita Ranger District, winter of 1935-6.

9. *Ibid.*

Year	Elk	White-tail	Mule Deer	Big Horn Sheep	Moose
1948	99	194	1,124	17	76
1957	350	475	3,000	60	125

10. Garland Shaw, range conservationist, Philipsburg District, Deerlodge National Forest, telephone interview, February, 1991.
11. *Ibid.*
12. Grazing is measured by the number of animals per allotment per month—expressed as Animal Unit Months, or AUMs. As of December, 1990, the BLM let 13 allotments, or 9,811 acres, that drain at least partially into Rock Creek, for a total of 1,609 AUMs. (Statistics released by Larry Newman, December, 1990.) The State Department of Lands let eight allotments, or 6,467 acres, for a total of 1,453 AUMs. (Statistics released by Chuck Wright, December, 1990.) The Deerlodge National Forest let 17 allotments for a total of 7,653 AUMs. (See Rock Creek Fisheries Management Plan, Montana Fish, Wildlife and Parks Department, September 1989-September, 1994.) And the Lolo National Forest let one allotment, 691-acre Big Hogback, for a total of 277 AUMs. (Statistics released by Joe Kipphut, January, 1991.) Sheep grazing on the Lolo ended in the late 1930s (except in the Sliderock area, where it continued until 1947).
13. At the time, the Lolo let seven grazing allotments. See Range Allotment Management Plan Assessment, Missoula Ranger District, 1976.
14. Ranching is the major source of agricultural income for Granite County. See Lolo and Deerlodge National Forests, Rock Creek Drainage, Brief Situation Statement, July, 1973.
15. Larry Newman, BLM range conservationist, telephone interview, December, 1990.
16. Montana Fish and Game Department, Survey, July 1, 1972 to June 30, 1973, op. cit.
17. Bob Neal, telephone interview, December, 1990.

Endnotes

18. Neal would rather have wildlife than mines as neighbors. When the settling pond dike at the Quartz Gulch mine failed in 1987, it spilled waste into a meadow Neal owns on the banks of Rock Creek. Neal also says that because his property was homesteaded after 1912, the government retained mineral rights—access to his land for prospecting.
19. A trend by landowners to restrict hunting on private property was noted by state officials in the early 1970s. Landowners complained of careless shooting, littering, gates left open, destruction and theft of equipment and livestock. See Montana Department of Fish, Wildlife and Parks, Survey, July 1, 1972 to June 30, 1973, op. cit.
20. Montana Fish and Game Department, Job Completion Report, May 1, 1956-April 30, 1957, op. cit.
21. Rock Creek Advisory Committee minutes, presentation by Montana Fish and Game Department biologist Reuel Jansen, April 16, 1973.
22. Ibid. Jansen reported only three bighorns left, two of them males. But Deerlodge National Forest representative Bob Shackelford later revised the estimate to six to fourteen. See minutes of September 24, 1974.
23. Neal complains about the use of helicopters in relocation operations. The bighorns panic and charge through fences, ripping out as much as a quarter mile of wire and maiming themselves, Neal says.
24. A 1991 report by the Montana Department of Fish, Wildlife and Parks lists streams in Montana suffering dewatering that is either chronic (year-round) or periodic (significant only in drought or water-short years). Twenty-one river miles of Rock Creek tributaries are listed as chronically dewatered. These findings will be updated periodically through field observation by regional fisheries biologists.
25. The authority was granted under Section 89-801(2), RCM 1947. See Appendix C.
26. The Murphy Rights bill was repealed in 1973, but the Murphy Rights appropriations remain valid. Senate Bill 76 in 1979 empowered the Montana Water Court to quantify and validate all water rights existing prior to 1973 and then summarize them into a decree for each of the state's 85 sub-basins.
27. See Appendix C.
28. The Bauer Ranch claims rights, as yet adjudicated, as far back as 1872. Records of water rights are kept by the Montana Department of Natural Resources and Conservation. (This centralization of documents was specified by the Water Use Act of 1973.) A list of water rights in the Rock Creek Basin is presented in Appendix D. Some of these rights may yet be examined and modified by the Montana Water Court.
29. The number of water appropriations for irrigation declined dramatically beginning in the 1950s, according to records kept by the Department of Natural Resources and Conservation.
30. In his memo of December 17, 1982, to Mike McLane, adjudication program manager for the Department of Natural Resources and Conservation, Westenberg recommends allowing staff to provide analyses to the Chief Water Judge on co-mingling of water rights, incremental development, and water rights transfers—all issues which were complicating the adjudication.
31. Bob Thompson, Environmental Quality Council, synopsis memo, undated. Also see Adjudication Program Chronology, Water Rights Bureau, Montana Department of Natural Resources and Conservation, undated.
32. These were listed in the "temporary preliminary decree" issued by the Water Court. A temporary preliminary decree is a listing of all water rights in a basin containing federal reserved water rights that have not been quantified. Such decrees contain all rights other than the federal reserved rights being negotiated. Later, the Water Court will issue a "preliminary decree" as a second phase. The Rock Creek temporary preliminary decree was issued in 1984 (Rock Creek is listed as sub-basin 76E, one of 85 sub-basins designated by the Water Court.) Susan Cottingham, program manager for the Reserved Water Rights Compact Commission, says the Lolo and Deerlodge Forests have yet to begin negotiations on their federal reserved water rights for channel stability.

Endnotes

33. The claims are as follows as listed in Hydrometrics report, 1987:

- Commercial—10
- Domestic—72
- Flood Control—1
- Fire Protection—1
- Fish and Wildlife—16
- Recreation—6
- Agricultural spraying—1
- Mining—47
- Power generation—1
- Stock water—244
- Wildlife—26
- Irrigation—278
- Municipal—1
- Unidentified Claims—2

The Department of Natural Resources and Conservation listing in Appendix D shows claims and permitted (post-1973) water rights by use and priority date. That list may deviate from the one above owing to changes made since the decree.

34. The 61 claims were for more than 2.5 cubic feet per second of water.

35. See Montana State Agricultural Experiment Station, Water Resources Survey for Granite County, 1959.

36. Lorraine Gillies and her husband Jim own a ranch homesteaded by Jim's family four generations ago at the confluence of Lower Willow Creek and Rock Creek. Because the Murphy Right already has established in-stream flow protection, Rock Creek is not included in the basinwide water reservation process under consideration by the Montana Board of Natural Resources and Conservation.

37. Funds for the Weed Advisory Trust come from the coal severance tax, car and truck licenses and a surtax on agricultural chemicals.

38. Year-round residents say they can't maintain knapweed-free islands among the untended ranchettes and 1,000-acre weed-choked Forest Service spread in the Valley of the Moon.

39. Montana Land Reliance, Rock Creek Landowner Seminars Report, August 9, 1990.

40. *Missoulian*, August 3, 1977.

41. *Ibid.*

42. *Missoulian*, August 5, 1977.

43. *Missoulian*, February 9, 1982.

44. Montana Fish and Game Department, Situation Statement, Rock Creek, Impact on Elk, March 12, 1970. Some 5,000 acres of land north of Gillies Bridge are suitable for residential development. See Lolo and Deerlodge National Forest Study Plan, June, 1972.

45. This was in the form of a temporary zoning regulation. Rock Creek Drainage Brief Situation Statement, Lolo and Deerlodge National Forests, July, 1973. For a history of early subdivision, see "Granite County Comprehensive Plan," 1974, and "Lower Rock Creek Inventory and Land Use" prepared for Granite County in 1974.

Endnotes

46. The Montana Floodplain and Floodway Management Act was prompted by the National Flood Insurance Program, initiated in 1968. The Montana law enables counties to adopt "flood loss reduction standards" in keeping with the National Flood Insurance Program. See the Floodplain Management Guidebook for local administrators. The guidebook, published by the Montana Department of Natural Resources and Conservation, describes federal and state floodplain regulations. It also gives sample local ordinances and tells how they can be administered.
47. Gary Fischer, Supervisor of the Floodplain Management Program, Department of Natural Resources and Conservation, personal interview, February, 1991. The permitting requirements for building in a floodplain are indeed daunting. Depending on the location, a builder might need to obtain the Montana Stream Protection Act 124 permit, the Montana Floodplain and Floodway Management Act floodway development permit, the short-term exemption from Montana's surface water quality standards (3A authorization), the Montana Natural Streambed and Land Preservation Act 310 permit, the Montana land use license or easement on navigable waters, the Montana Water Use Act water right permit, the Federal Clean Water Act 404 permit, permits required under the Federal Rivers and Harbors Act, and other laws involving mining authorization, septic system installment and pollution discharges. Under the Montana Floodplain and Floodway Management Act, sewers are not allowed within the 100-year floodplain.
48. Mike Kahoe, Granite County Planner, telephone interview, February, 1991.
49. "Rules and Regulations Governing Individual Sewage Disposal Systems," Granite County; "Missoula County Health Department, Regulation No. 1, governing sewage treatment and disposal systems," May 19, 1988. In 1990, Missoula County was using experimental state regulations which allowed sewage systems closer than 10 feet to the groundwater level only with modern construction methods and after testing in June and July (high groundwater period in the Rock Creek canyon).
50. Montana Land Reliance, op. cit.
51. Even before the Montana Land Reliance publicized the easement option, some residents had placed covenants on land they sold—specifying, for example, no subdivision smaller than five acres, no metal buildings or no mobile homes, according to Adam Michnevich. One group of residents also pooled resources to buy out a junkyard, and sold the seven-acre parcel to a man who built a single log home.
52. John Wilson, Montana Land Reliance, telephone interview, January, 1991. Mineral rights held by the government on some parcels are an obstacle to the creation of conservation easements, and landowners may have to petition the Bureau of Land Management or the Forest Service to withdraw those areas from mineral activity.
53. The Rock Creek Advisory Council contributed \$150,000; the Montana Department of Fish, Wildlife and Parks contributed \$60,000.
54. U.S. Forest Service Land and Resource Management Planning Handbook: Standards for Wild and Scenic Rivers, July, 1987.
55. "Designating Rock Creek in Montana as Part of the Wild and Scenic Rivers system," hearing before the Subcommittee on Public Lands of the Committee on Interior and Insular Affairs, United States Senate, Missoula, August 19, 1972. U.S. Government Printing Office, 1972. This document illustrates beautifully the public's fears and hopes for Rock Creek during a critical era.
56. Tom Cassidy, telephone interview, January, 1991.

Endnotes

57. American Rivers lobbies to get public agencies the money they need to complete the studies. So far, the Forest Service lacks the funds to study Rock Creek's suitability and issue the required Environmental Impact Statement, according to Doug Glevanik, a Region One planner.
58. A bill to designate the eligible tributaries of the Flathead River as Wild and Scenic is being drafted, and Cassidy believes this might be expanded to include Rock Creek and other pristine western Montana rivers.
59. Deerlodge National Forest Plan, September, 1987, Final Environmental Impact Statement, also Appendix T: Of the seven miles between Gillies Bridge and the forest boundary, only about a mile is public land; only this is affected by the classification. The rest is private.
60. George Leighton, Lolo National Forest planner, telephone interview, January, 1991.
61. Campground sizes vary from four to 19 sites; none has been expanded in recent years, according to Lolo Forest officials. Dalles is the busiest; a site somewhere along the canyon can usually be had, even on short notice at peak season. See: 1989 Rock Creek Campground Use, Missoula Ranger District, Lolo National Forest.
62. *Missoulitan*, May 31, 1964, article by Carl Siria, op. cit.
63. The 1979 regulations reduced the limit to three trout, only one of which could be longer than 14 inches, and banned the use of bait by adults. In 1986, these regulations were changed to allow three trout: two less than 12 inches and one over 20 inches or three less than 12 inches.
64. Montana Department of Fish, Wildlife and Parks, Rock Creek Road Traffic Counts, Missoula, Granite Counties. From 1977 through 1984, the count on Lower Rock Creek was taken from a post opposite the Stage Station Saloon. On May 25, 1985, it relocated to the end of the blacktop (milepost 1.2). Seasonal statistics reflect the period from May 1 through November 30, or 214 days.

Year	Total	Avg. Daily	Total Seas.	Seas. Avg. Daily
1977	127,438	349	100,395	469
1978	130,065	356	97,608	456
1979	121,528	333	91,097	430
1980	121,629	333	92,097	430
1981	118,923	326	89,175	417
1982	110,750	303	86,666	405
1983	121,546	333	94,004	439
1984*	140,453	384	109,790	513
1985	94,448	259	66,702	312
1986	87,192	239	65,662	307
1987	89,903	246	67,298	315

*A 1984 seasonal count was also taken on middle Rock Creek from April 25 to November 30 (219 days). The count was taken above the Ranch Creek Road intersection. The total seasonal count was 15,374 vehicles. The average seasonal daily traffic was 70 vehicles.

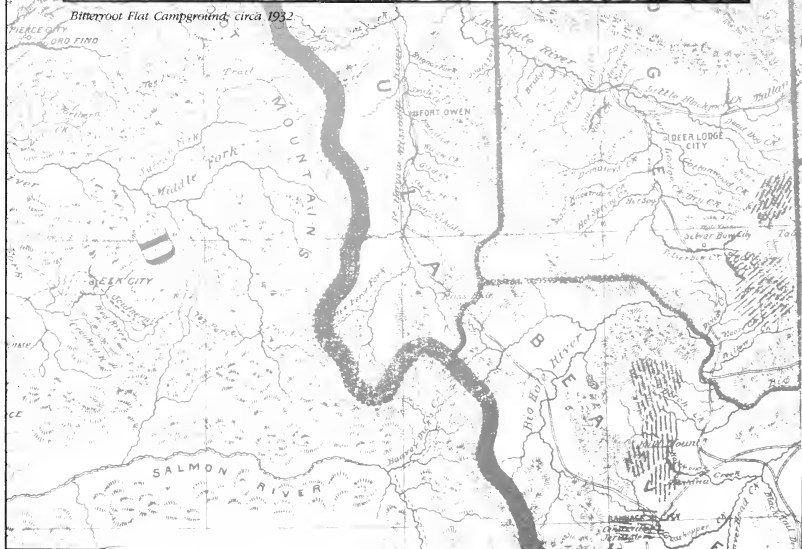
65. Letter from Michael C. Mix, Ph.D., Corvallis, Oregon, to Dennis Workman, Montana Department of Fish, Wildlife and Parks, July 28, 1987.
66. Montana Department of Fish, Wildlife and Parks, Fisheries Division, Floating and Creel Survey, job progress report: statewide fisheries investigation, survey and inventory of coldwater streams, west central Montana coldwater stream investigation, period: July 1, 1988-June 30, 1989.

Endnotes

67. Lolo National Forest memo, September 2, 1988. The Forest Service received 180 responses to its "scoping" letter. See also the *Missoulian* article, October 6, 1988.
68. Letter from Paul S. Roos, Paul Roos Outfitters, Helena, to Jerry Wells, regional supervisor, Montana Department of Fish, Wildlife and Parks, September 27, 1988.
69. Letter from Michael C. Mix, op. cit.
70. Decision Notice and Finding of No Significant Impact, Rock Creek Float Fishing, Lolo National Forest, Dave Stack, December 22, 1988.
71. Memo from L. Cass Casquilho to Missoula District Ranger Dave Stack, June 15, 1989.
72. Letter from Bill Hammer, Rock Creek resident, to Lolo Forest Supervisor Orville Daniels, February 14, 1990.
73. Montana Department of Fish, Wildlife and Parks estimate quoted in *The Philipsburg Mail*, March 23, 1989.
74. "The Net Economic Value of Fishing in Montana," by John Duffield, University of Montana, John Loomis, University of California, Davis, and Rob Brooks, Montana Department of Fish, Wildlife and Parks, 1987.
75. Montana Department of Fish, Wildlife and Parks Department, Floating and Creel Survey, July 1, 1988-June 30, 1989, op. cit. Of the fish caught and released, rainbow trout were by far the most prevalent, followed by brown trout, cutthroats, and bull and brook trout.



Bitterroot Flat Campground, circa 1932



CONCLUSION

Logging, Mining and Grazing, Wilderness, Water and Land:

What's In Store and How To Take Part

Let's face it: Rock Creek is a touchy subject and likely to remain so. The river is simply too beautiful, too lush, too abundant with spiritual and financial treasure not to engender fierce, sometimes jealous debate. The bickering hasn't been all bad, though; a quarter century of tussling over everything from snakes to cyanide has taught the public a lot about managing riparian areas in general and the Rock Creek watershed in particular. In turn, state and federal agencies have come to recognize it's not only possible to involve the lay public in land management, it's also vital to do so. For without the public's participation and cooperation, the best-laid plans in a state as big and wild as Montana will come to naught.

This does not mean that conflicts between such disparate values as environmental conservation and resource extraction, or scenic preservation and commercial development, will disappear. In fact, as the state and region become more crowded, the stream's recreational charms become more widely known and timber grows more scarce elsewhere, we can look forward to years of lively—and constructive—debate over the health and use of Rock Creek. As this document goes to press, members of such groups as Trout Unlimited and Friends of the Bitterroot are calling for a drainage-wide Environmental Impact Statement for ten years of management action in Rock Creek.¹ Another group, the Lolo-Clearwater Forest Defense, attracted 75 people to a March, 1991 meeting in Missoula to consider such alternative management scenarios as a Rock Creek National Recreation Area, which could include a prohibition on logging.² Here are some issues and trends to watch for:

For the ten-year period beginning in 1989, the Forest Service plans to offer nearly 70 million board feet of timber for sale in the Rock Creek drainage.³ That compares with fewer than 25 million board feet logged in the previous ten years, and approximates the intensity of logging that inspired the public to force a moratorium on timber sales in the mid-1970s.⁴ A three-fold increase in timber sales raises troubling questions. What kind

of monitoring is preceding these sales? Will that monitoring meet the intent of the landmark Rock Creek Advisory Committee agreements? Has monitoring improved or declined in recent years? The Montana Department of Fish, Wildlife and Parks plans to evaluate and comment on all new logging proposals. The public will also have the opportunity to add its voice to the process during the mandated periods open to comment.

What about mining plans in the Rock Creek drainage? A flurry of monitoring efforts preceded closure of the Bagdad mine, and other large projects on the Lolo National Forest can be expected to receive similar scrutiny. But what about small mines? There is no single clearinghouse for information about mining projects, and various agencies tend to fall behind in record-keeping, inspection and enforcement. The public, of course, will have a chance to monitor and comment upon a number of new mining proposals during the permitting process. The problem is, mining law is so byzantine and the industry so decentralized that even the eyes of ardent conservationists tend to glaze over when it comes time to evaluate small claims, their deleterious potential and the regulations that apply to them. Those wanting to keep an eye on mining claims should note, however, that a wealth of information is easily accessible from the files and computers of the Clark Fork Coalition in Missoula, the Montana Bureau of Mines and Geology in Butte, the Hard Rock Mining Bureau of the State Lands Department in Helena, the Water Quality Bureau of the Montana Department of Health and Environmental Sciences, the Philipsburg and Lolo Ranger Districts and the mining geologists and administrators at Forest Service regional headquarters in Missoula. All are cooperative, and a tremendous amount of information is available for the asking.

There seems to be an endless supply of plans for wilderness protection in the Rock Creek drainage. They range from the limited Forest Service suggestions to the sweeping recommendations of a new plan put forward by the Alliance for the Wild Rockies. The plan, known as the Wild Rockies

Logging, Mining and Grazing, Wilderness, Water and Land

Bill, would protect in one stroke more than 26,000 square miles of roadless wildlands in five western states—an area collectively bigger than Maryland, Connecticut, Massachusetts, Rhode Island and Delaware combined. Vast swatches of Rock Creek land would pass into wilderness with the Wild Rockies Bill, including the following roadless areas: 103,266 acres of Stony Mountain, 80,003 acres of Quigg Peak, 116,530 acres of Sapphire, 16,000 acres of Emerine, 30,922 acres of Silver King and 1,102 acres to be added to the Welcome Creek Wilderness. In 1991, this multi-state wilderness plan was still looking for a sponsor. Opponents point out the bill is unlikely to find a western sponsor; proponents argue that didn't stop Congress from legislating protection for the Grand Canyon. While this or any other legislation is pending, it is worth asking whether proposed wilderness lands in Rock Creek are being managed in ways compatible with eventual wilderness designation.

Livestock grazing continues along the middle and upper reaches of Rock Creek on both public and private lands, and that, too, will be a hot issue in the 1990s. Conservationists are becoming acutely aware that cattle can destroy vegetation, break down stream banks and widen and flatten stream channels. Ranchers feel they are being unjustly targeted by anti-livestock campaigns. Those who would protect Rock Creek will find themselves asking whether riparian areas are adequately fenced, with provisions for designated watering areas. In general, most observers believe grazing practices in the drainage are improving and ranchers should be encouraged to maintain open land profitably in the upper basin. But grazing, as much as logging, mining or any other commercial activity, can be managed well or inadequately, and it often depends on who's watching.

On Rock Creek's private lands, voluntary agreements, rather than tough new zoning laws, seem the most likely tool for maintaining the low-density development that has kept the river relatively healthy so far. Accordingly, the Montana Land Reliance is helping landowners negotiate the donation or sale of conservation easements to the Rock Creek Advisory Council.

The abundance of water for agriculture and fisheries is not taken for granted in this hidden valley. Cascading spring runoff often collides with summertime drought. These are the cycles of nature; but they are subject as well to the pressures of Rock Creek's many water users. Basin residents, in maintaining their diverse lifestyles, will need to commit to a cooperative conservation ethic. Recreation on Rock Creek remains a matter of intense public interest. The Montana Department of Fish, Wildlife and Parks created an ad hoc citizens advisory group to help with a fisheries management plan for 1989 through 1994.⁶ Research continues on the water-quality impact of chemicals used to control road dust and noxious weeds. Management of stream access, wildlife habitat and historic sites all were subject to scrutiny during planning sessions in 1990.⁷ And of course, the float-fishing versus wading arguments were revived. Some people feel the Montana Department of Fish, Wildlife and Parks—instead of the Forest Service—should control floating on the creek.

The preservation of Rock Creek's biologic and scenic qualities is a generally accepted goal, according to a 1989 state survey.⁸ But many Granite County citizens fear reduction of logging and mining in the drainage already has had serious economic consequences, and that recreational income cannot replace these losses. So the balancing act will go on. The benefits of logging and road construction will be weighed against the costs of erosion and stream siltation. The profits from mining will be considered against the damage from mine wastes leaching into streams. The need for vacation homes in the canyon will be judged against the threat of sewage leaks and the loss of wildlife habitat. Citizens and government agencies can help protect the lands and waters of Rock Creek country by getting involved in the planning processes for mining, timber sales, water allocation and grazing allotments; participating in drainage-wide interagency planning or ad hoc committees; and insuring that water quality monitoring is done in accordance with the landmark Rock Creek Advisory Committee agreement. As with any fragile thing of value, the future of Rock Creek depends on the efforts of those who love it.

ENDNOTES

1. The initial response of the Forest Service was again to reject a drainage-wide Environmental Impact Statement. (The idea was first raised in the early 1970s by the Rock Creek Advisory Committee.) See the letter to Bill Bradt from Deerlodge Forest Supervisor Van C. Elsbernd and Lolo Forest Supervisor Orville Daniels, February 20, 1991. Bradt is undaunted. "We couldn't ask for two more ecologically-minded supervisors," he says.
2. Lolo-Clearwater Forest Defense members Mark Watkins and Randy Scott, telephone interviews, March, 1991. See also the *Missoulian* article of March 12, 1991.
3. On the Deerlodge, 42.2 million board feet will be offered; on the Lolo, 27.26. See Rock Creek Fisheries Management Plan, Sept. 1989—Sept. 1994, Montana Department of Fish, Wildlife and Parks. Some 27 percent of National Forest lands in the drainage have been identified for timber and range management.
4. Nearly 64 million board feet of timber were logged from 1959 through 1968; more than 81 million board feet were logged from 1969 through 1978.
5. Skip Rosquist, a hydrologist on the Lolo National Forest, can be consulted about efforts to coordinate monitoring in the drainage.
6. Rock Creek Fisheries Management Plan, op. cit. The 28 members of the committee included outfitters, landowners, real estate brokers, fish and game clubs, Forest Service representatives and others.
7. Montana Department of Fish, Wildlife and Parks memo, Rock Creek Recreation Plan, February 27, 1990.
8. Rock Creek Fisheries Management Plan, op. cit.

APPENDIX A

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- Lolo National Forest. February, 1986. The Lolo National Forest Plan. Also see Appendices. Appendix C contains wilderness recommendations.
- Lolo National Forest. September 2, 1988. Memo discusses float fishing controversy.
- Lolo National Forest Wildlife Biologist Mike Hillis. December 15, 1988. Biological Evaluation for the proposed Bagdad Mine discusses bald eagles and Peregrine falcons.
- Lolo National Forest, Missoula District Ranger Dave Stack. December 22, 1988. Decision Notice and Finding of No Significant Impact, Rock Creek Float Fishing.
- Lolo National Forest, Missoula Ranger District. 1989. Rock Creek Campground Use.
- Lolo National Forest, Missoula District Ranger Dave Stack. January 17, 1989. Memo lists objectives for Rock Creek.
- Lolo National Forest, Acting Missoula District Ranger Greg Munther. March 3, 1989. Letter to Montana Fish, Wildlife & Parks Department notes Forest Service request for Environmental Impact Statement on Bagdad Mine.
- Lolo National Forest Supervisor Orville Daniels. April 20, 1989. Letter to Steven Pilcher, chief of Water Quality Bureau, State Department of Health and Environmental Sciences, discusses mining.
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- Lolo National Forest Wildlife Biologist Mike Hillis. Undated. Evaluation of the proposed Bagdad Mine.
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- Lolo and Deerlodge National Forest Supervisors Jack Large and George M. Smith. October 18, 1972. Letter to Ron Marcoux, Montana Fish & Game Department, advises that 18 organizations have appointed representatives to the Rock Creek Advisory Committee and setting the first meeting for October 31.
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—August 3-5, 1977 and February 9, 1982. Articles cover the Snake Pit.
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—May 31, 1964, Article by U.S.F.S. Ranger Carl Siria discusses Rock Creek history.
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- Montana Fish & Game Department. May 1, 1956 - April 30, 1957. Job Completion Report, Investigations Report, Deerlodge Unit, Background. Report covers big game history.
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APPENDIX B

INTERVIEWS

Ted Antonioli, geologist for A&M Mining Co. Missoula.

Robert Bassett, entrepreneur, former owner of the Elkhorn Guest Ranch, founding member of the Montana Sierra Club Group and of the Rock Creek Advisory Committee. Missoula.

Bill Bradt, Sapphire Realty. Hamilton.

Tom Cassidy, spokesman, American Rivers. Washington D.C.

Jay Cornish, senior environmental biologist, MSE, engineering and environmental consulting. Butte.

Susan Cottingham, program director, the Montana Reserved Water Rights Compact Commission. Helena.

Bill Cunningham, wilderness advocate, outfitter, photographer and author. Missoula.

Orville Daniels, forest supervisor, Lolo National Forest. Missoula.

Dr. Gary Eudaily, optometrist, member of the Western Montana Fish & Game Association, member of the Rock Creek Advisory Committee. Rock Creek and Missoula.

Bruce Farling, deputy director, Clark Fork Coalition. Missoula.

John Firebaugh, wildlife manager, Montana Fish, Wildlife and Parks Department, Region Two. Missoula.

Gary Fischer, engineer and supervisor of the state Floodplain Management Program, Department of Natural Resources and Conservation. Helena.

Jack Fisher, resource assistant, Lolo National Forest. Missoula.

Lorraine Gillies, rancher, lobbyist for the Montana Farm Bureau, and member of the Rock Creek Advisory Council. Rock Creek.

Doug Glevanik, planner concerned with Wild and Scenic River assessments, Northern Region, U.S.F.S. Missoula.

Tom Heinz, district ranger, Philipsburg Ranger District, Deerlodge National Forest. Philipsburg.

Tom Huff, professor, University of Montana School of Law, former professor of philosophy, University of Montana, founding member of the West Slope Chapter of Trout Unlimited and member of the Rock Creek Advisory Committee, Aquatic Resources Subcommittee. Missoula.

Mike Kahoe, Granite County Planner. Philipsburg.

Joe Kipphut, grazing allotment administrator, Missoula Ranger District, Lolo National Forest. Missoula.

Kurt Knievel, minerals management specialist, Philipsburg Ranger District, Deerlodge National Forest. Philipsburg.

Don Lawson, staff field agent, retired, Bureau of Mines. Butte.

Gary Learn, supervisory forester, timber management assistant, Philipsburg Ranger District, Deerlodge National Forest. Philipsburg.

George Leighton, planner concerned with Wild and Scenic River eligibility, Lolo National Forest. Missoula.

Ed Lord, rancher, shareholder in the Rock Creek Ditch and Flume Company. Flint Creek.

Jack Losensky, forest ecologist, U. S. Forest Service, Lolo National Forest. Missoula.

Andy Lukes, Champion International Corporation. Missoula.

Ron Marcoux, Rocky Mountain Elk Foundation, former fisheries biologist, Region 2, Fish, Wildlife & Parks Dept. and former member of the Rock Creek Advisory Committee, Aquatic Resources Subcommittee. Missoula.

Kirby Matthew, archaeologist, cultural resources, Lolo National Forest. Missoula.

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Mel McBeath, Montana Department of Natural Resources and Conservation engineer who has spent 20 years gauging streams throughout the state. Helena

Esther McDonald, rancher and weed control leader. Rock Creek

John McCabe, attorney, Conference of Commissioners for Uniform State Laws, former assistant dean of University of Montana School of Law, author of 1971 appeal of timber sales in Rock Creek drainage. Chicago.

Howard "Howie" McDowell, retired, former representative of Inland Forest Resource Council on Rock Creek Advisory Committee, Aquatic Resources and Timber Subcommittees. Eugene, Oregon

Adam Michnevich, retired, member of the Rock Creek Association and former member of the Rock Creek Advisory Committee, Aquatic Resource Subcommittee. Rock Creek.

Everett Miller, retired, chairman of Granite County K.E.E.P. (Committee for Environmental and Economic Protection), former big game outfitter, general manager of Montana Forest Products Mill and member of the Rock Creek Advisory Committee. Miller's great-grandfather came in 1843 on the first wagon train into the Oregon Territory. Philipsburg.

Jud Moore, public affairs officer, Northern Region, U.S.F.S. Missoula

William R. "Bud" Moore, retired, wilderness advocate and former director of aviation and fire management, Northern Region, U.S.F.S. Condon.

Lee Murray, forester, Deerlodge National Forest. Philipsburg.

Bob Neal, rancher. Rock Creek

Larry Newman, range conservationist, Bureau of Land Management. Missoula

Don Peters, fisheries biologist, Region 2, Montana Department of Fish, Wildlife & Parks. Missoula

Skip Rosquist, Lolo National Forest hydrologist who coordinates monitoring. Missoula.

Randy Scott, Lolo-Clearwater Defense. Missoula.

Garland Shaw, range conservationist, Philipsburg District, Deerlodge National Forest. Philipsburg

Sean Sheehan, representative, Deerlodge Conservation Coalition. Boulder, Montana

Jim Sheldon, mining engineer, Northern Region, U.S.F.S. Missoula

Steve Sherick, legislative coordinator, Northern Region, U.S.F.S. Missoula.

Denzil Sigars, manager, Plum Creek Timber Company Inc. Missoula.

Dave Stack, Missoula District Ranger, Lolo National Forest, Northern Region, U.S.F.S. Missoula

Ray TeSoro, geologist, Northern Region, U.S.F.S. Missoula

Ron Wachsmuth, minerals administrator, Missoula Ranger District, Lolo National Forest. Missoula

Mark Watkins, Lolo-Clearwater Defense. Missoula.

Terrence Webster, hydro-geologist, Hardrock Bureau, Reclamation Division, Montana Department of State Lands. Helena.

John Westenberg, water rights field technician in charge of processing field verifications during the Rock Creek basin adjudication, Department of Natural Resources and Conservation, Water Rights Field Office. Missoula

Robert Wheatley, geologist, FMC Gold Company. Denver, Colorado.

John Wilson, Montana Land Reliance. Helena

Ron Winegar, program supervisor, Hardrock Bureau, Reclamation Division, Department of State Lands. Helena

Dennis Workman, regional fisheries manager, Region 2, Montana Department of Fish, Wildlife & Parks. Missoula

Chuck Wright, Department of State Lands. Missoula

Steve Yurich, retired, former Regional Forester, Northern Region, U.S.F.S. Bosque Farms, New Mexico.

APPENDIX C

IMPORTANT DOCUMENTS AND AGREEMENTS

1. U.S. Forest Service. October 16, 1972. Letter from Steve Yurich to Lolo and Deerlodge Supervisors approves request to establish the Rock Creek Advisory Committee.
2. Lolo and Deerlodge National Forests. 1972. Proposal to Establish Rock Creek Advisory Committee.
3. U.S. Forest Service. June 23, 1972. Letter from Steve Yurich to Lolo and Deerlodge supervisors institutes moratorium on timber sales.
4. U.S. Forest Service. March 8, 1983. Letter from Regional Forester Tom Coston to Deerlodge and Lolo supervisors lifts moratorium.
5. Rock Creek Advisory Committee. April 11, 1973. Proposal, Project Work, Aquatic Resource Monitoring Procedures, Rock Creek Drainage.
6. Lolo and Deerlodge National Forest Supervisors Jack Large and George M. Smith. May 31, 1973. Letter to the Rock Creek Advisory Committee agrees, with minor changes, to water quality monitoring standards proposed by the Aquatic Resource Subcommittee. Cover letter from George M. Smith is attached.
7. Montana Fish & Game Department Regional Coordinator Jim Ford. July 2, 1973. Letter to George M. Smith, Deerlodge Forest Supervisor and Chairman, Rock Creek Advisory Committee supports monitoring procedures proposed by the Aquatic Resource Sub-committee.
8. Revised Codes of Montana, 1947. Section 89-801 (2)—Murphy statute. And Listing of Murphy Rights on 12 Montana Blue Ribbon streams.

Appendix C

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Region 1, Missoula, Montana 59801

REPLY TO: 1350 Public Advisory Committee

October 16, 1972

SUBJECT: Rock Creek Advisory Committee, Lolo and Deerlodge
National Forests

TO: Forest Supervisors, Lolo & Deerlodge NF's



I have reviewed your request to establish the Rock Creek Advisory Committee. Within my delegated authority from Chief, I approve your request. With this approval each of you have the responsibility to manage the establishment and use of this committee in accordance with the authorities cited in June 1972, Title 1300-Management, Amendment No. 43.

STEVE YURICH
Regional Forester

Appendix C

ATTACHMENT NO. 1

Proposal to Establish ROCK CREEK ADVISORY COMMITTEE Deerlodge and Lolo National Forests

I. Need

The Rock Creek drainage, located on the Lolo and Deerlodge National Forests, is a focal point of controversy regarding Forest Service management. A major problem has been a polarization of attitudes and opinions between various interest groups. Over the past, the two Forests have developed Coordinating Requirements for planning in the drainage, and specific project proposals. These Coordinating Requirements and proposals have been met with equally strong opposition and support. Opposition to the proposals developed into a formal Appeal being filed against the respective Forest Supervisors.

It is probable that polarizations became strong enough that interested parties became partially engrossed in philosophical discussions rather than looking at the capabilities of the land to produce various alternative mixes of resources and/or uses. Multiple Use management has occurred in the drainage in the past. Currently, future management planning and project proposals are essentially stalemated.

The Rock Creek drainage has recently been sub-divided into planning units in line with our new Multiple Use Area Planning concept. It is felt that the procedures we will be using in preparing the new Multiple Use plans will re-focus issues back to the land proper. Involvement of the interest groups is mandatory. We feel this can best be accomplished by the establishment of a Public Advisory Committee for the entire Rock Creek drainage.

II. Purpose of the Committee

The primary purpose of the Advisory Committee will be to provide advice to the Forest Supervisors on the over-all aspects of policies, planning and programs in the Rock Creek drainage. The Committee will also provide a forum for discussing policy matters pertinent to management of the drainage which may be raised by either the Forest Service or Committee members. Through involvement, it is anticipated the Committee will be particularly helpful in developing and reviewing management alternatives which consider the capabilities of the land and the needs of the people from the local, regional and possibly national standpoint. Although the Forest Supervisors

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-2-

will conscientiously weigh and evaluate the advise and recommendations of the Committee, final management decisions will be made solely by the Forest Supervisors.

III. Plans for Committee Operation

A. Membership

The Committee will be composed of representatives of local interest groups concerned with resource management in the Rock Creek Drainage. One member and one alternate will be identified from each organization invited to participate.

1. Appointments

Appointments to the Advisory Committee will be made by the Forest Supervisor.

2. Tenure

Members will be appointed for a period of two years; or, the termination date of the committee, if less than two years.

3. Vacancies

In the event of vacancies in membership, alternate members will be appointed as members to fill the unexpired period of the two year term.

4. Extensions

Should the Rock Creek Advisory Committee be extended beyond the initial two year period for which it is authorized, alternate members will be considered for appointment as regular members. Up to 25% of the regular members appointments may be extended one year, if deemed necessary to maintain continuity and effectiveness of operation.

B. Meetings

Meetings will be held at least semi-annually. Additional meetings may be called by the Forest Supervisors if deemed desirable. It is anticipated that more frequent meetings will be desirable during the earlier stages of Committee operation.

1. Location

The location and time of meetings will be scheduled in such a manner to best accommodate the convenience of Committee members.

Appendix C

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Region 1

REPLY TO: 2100 Multiple Use

SUBJECT: Multiple Use Planning, Rock Creek Drainage

TO: Forest Supervisors, Lolo and Deerlodge NF's

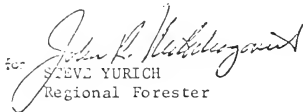
In October 1971 I responded to a letter from Dr. Gary Eudaily, President of the Western Montana Fish and Game Association, regarding ongoing management activities in Rock Creek. Copies of that letter were sent to you.

Last month in my conversation with the ad hoc committee for Rock Creek I also expressed my directions for interim management until planning is completed on a unit.

I want to assure that we have no misunderstanding between us as to my directions in this regard and have put them in this letter for your use.

Multiple use planning will precede any other type of planning on any unit in the Rock Creek Drainage. The planning will be accomplished as detailed in the Forest Service Manual Emergency Directives, title 2100, on a planning unit basis. No new contracts for timber sales, road construction, or other development activities will be planned or activated until unit planning, including our procedural review of an environmental statement is completed. This direction does not apply to contracts already in progress. Maintenance of existing improvements, protection of resources and facilities, and measures necessary for the safety of forest users are acceptable practices. Minor salvage logging in previously roaded areas is also acceptable.

If you have questions about this interim management policy, please give me a call.

for 
STEVE YURICH
Regional Forester

Appendix C



United States
Department of
Agriculture

Forest
Service

R-1

Priority to: 1930 Program Development and Program Budgeting
1920 Land and Resource Management Planning

Date MAR 08 1983

Subject: Land Use Planning - Rock Creek Drainage

To: Forest Supervisors, Lolo and Deerlodge NF's

On June 23, 1972, Regional Forester Steve Yurich issued direction that new contracts for timber sales in the Rock Creek Drainage would not be made prior to completion of unit plans for the area. Since that time the National Forest Management Act has become law and unit plans are no longer required. Instead, comprehensive Forest plans are required.

In responding to this direction you began developing unit plans for this area. These unit plans were nearing completion when the National Forest Management Act was passed requiring the development of Forest plans. When this happened we decided to move forward and incorporate the results of your unit plan analyses into Forest plans.

Since that time you have moved ahead with the development of your Forest Plans, but because of the Ninth Circuit Court of Appeals decision related to RARE II you will not be able to issue the finals at this time.

Given this background and your efforts to respond to the June 23, 1972, direction I am making a new decision regarding carrying out management activities in the Rock Creek Drainage.

You can proceed with your planning and management of the Rock Creek Drainage as you would other areas on the Forests. Proposed management activities should be compatible with the management outlined in the draft Lolo Forest Plan or the current management plan for the Deerlodge Forest. In addition, all activities should continue to recognize the issues and concerns that led to the June 23, 1972, letter. You should also be sure that you are fully involving the public in your activities in this area and meet the requirements of FSM 1950 in your planning and decision processes.

for TOM COSTON
Regional Forester

cc: PP&B - Reid, Hutcheson
RF

Appendix C

PROPOSAL
PROJECT WORK AQUATIC RESOURCE MONITORING PROCEDURES
ROCK CREEK DRAINAGE
April 11, 1973

OBJECTIVE:

To monitor selected water quality parameters in the streams flowing through significant Forest Service land use activities. Data will be used to guide Forest Service land use practices. This information will be disseminated to other agencies and landowners who have interest in the drainage.

PURPOSE:

To secure selected water quality data, when possible, two years prior to, during and after project work. Data secured will be used to detect change, if any, created by project work. Change is determined by comparing baseline data secured prior to project work and data secured above the project work area with data secured below project work area. Pre-project data will be used by the project administrator to protect the aquatic resource.

METHODS:

Four major Forest Service initiated land use activities (logging, grazing, roading, recreational use) are recognized as having a potential to degrade the quality of the Rock Creek Drainage Aquatic Resource. Mining is also a major land use activity, however, not initiated by the Forest Service and monitoring the effects of this activity must be a coordinated responsibility of developer, State and Forest Service.

ROAD CONSTRUCTION

- A. Suspended Bedload
- B. Turbidity

LOGGING

- A. Suspended Bedload
- B. Turbidity
- C. Temperature
- D. Conductance
- E. pH

RECREATIONAL DEV.

- A. Coliform
- B. Conductance
- C. Turbidity

MINING

- A. pH
- B. Conductance
- C. Turbidity
- D. Temperature
- E. Suspended Bedload
- F. Heavy Metals

GRAZING

- A. Temperature
- B. Turbidity
- C. Coliform

Monitoring will commence when possible, two years prior to project development. Frequency of, and specific parameters to be monitored, will be determined by Forest Service aquatic resource managers. For an example, if thirty day temperature recorders were used, continuous data would be available, or in the case of suspended bedload monitoring, it also would be continuous, whereas pH would be a point in time measurement.

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ACTION PLAN

Data secured from the streams below the project will be compared against baseline and water quality data secured from above the project work areas. If increases are in excess of Rock Creek Water Quality Guidelines and/or State standards, field inspection will be made to identify the problem and corrective measures will be taken.

RESPONSIBILITY AND LOGS

1. Forest Service aquatic resource managers will be responsible for coordinating, monitoring and the interpretation of the data.
2. Data will be available for public and inter-agency review.

Appendix C

To: Rock Creek Advisory Committee Members

The Rock Creek Advisory Committee requested the Forest Supervisors of the Deerlodge and Lolo National Forests make a formal response to the Committee on the proposal for project work aquatic resource monitoring for the Rock Creek drainage. Attached is the Forest Supervisors' response to the proposal. If the "interpretations" as outlined in the Supervisors' reply need additional discussion, we'll plan on scheduling this.

The Committee also requested we transmit the monitoring proposal to other public agencies and interested persons for comment. Specifically, the Committee is interested in determining if other public agencies - and possibly individuals - would be willing to utilize the guidance provided in the proposal for activities on lands not under Forest Service jurisdiction.

Letters to agencies and individuals will be sent out in the next few days. When responses are received, I will pass the "returns" on to the Aquatics Sub-committee.

Per recommendations made at the May 22nd meeting, a letter of commendation was transmitted to the Corps of Engineers concerning the rip-rap project. Also, a letter was transmitted to the Federal Highway Administration requesting they consider monitoring turbidity and suspended bed load in conjunction with the bridge construction project at West Fork.

Copies of the letters will not be sent to all of you unless you make specific requests. I'm trying to minimize reproduction costs. However, if you feel a need for the correspondence, give a yell.

The members of the Aquatic Resource Sub-committee are to be complimented for the progress achieved in proposing solutions for maintaining water quality in Rock Creek. I know they worked hard at arriving at the final proposal. I think this has been a very positive and fruitful effort.



GEORGE M. SMITH, Chairman
Rock Creek Advisory Committee

Appendix C

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Lolo National Forest
2801 Russell Street
Missoula, Montana 59801

Reply to: 2150 Multiple Use Coordination

May 31, 1973

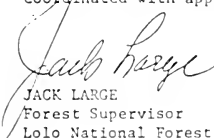
Subject: Project Work Aquatic Resource Monitoring Procedures,
Rock Creek Drainage

To: Rock Creek Advisory Committee

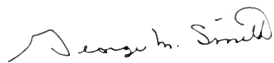
We concur with the project work aquatic resource monitoring procedures for the Rock Creek drainage as recommended to the Rock Creek Advisory Committee by the Rock Creek Aquatic Resource Sub-Committee.

To establish a common understanding as to when monitoring will occur, we must mutually agree on the procedure the Forest Service will use to determine when monitoring will be required. We interpret sentence one in the objects of the proposed outline to mean, (1) Monitoring will occur when land use activities are prescribed within or directly adjacent to the flood plain of perennial streams, and (2) The decision to monitor or not monitor perennial streams when prescribed land use activities are scheduled outside and not directly adjacent to the flood plain will be based on the merits of each activity and its likelihood of causing aquatic resource degradation. The decision as when to monitor perennial streams where land use activities are outside and not directly adjacent to the flood plain will be made by the Aquatic Resource Manager.

Drainage monitoring for prescribed land activities will be coordinated with appropriate Federal and State Agencies.



JACK LARGE
Forest Supervisor
Lolo National Forest



GEORGE M. SMITH
Forest Supervisor
Deerlodge National Forest

STATE OF MONTANA



DEPARTMENT OF

FISH AND GAME

3309 Brooks Street
Missoula, Montana 59801
July 2, 1973

Mr. George M. Smith, Forest Supervisor
Chairman, Rock Creek Advisory Committee
Deerlodge National Forest
P. O. Box 400
Butte, Montana 59701

Dear Mr. Smith:

We support the monitoring procedures as outlined by the Aquatic Resource Sub-committee and are willing to utilize the monitoring guides for any future activities under our management jurisdiction.

We recognize monitoring a minimum of two years prior to project work as a necessity if we are to evaluate changes. It is also important that corrective measures be taken as soon as possible, if problems occur.

We commend the advisory committee for this positive approach to maintaining the values of Rock Creek.

Sincerely,


Jim Ford
Regional Coordinator

JF/vm

89-801. What waters may be appropriated. (1) The right to the use of the unappropriated water of any river, stream, ravine, coulee, spring, lake, or other natural source of supply may be acquired by appropriation, and an appropriator may impound flood, seepage, and waste waters in a reservoir and thereby appropriate the same.

(2) But the unappropriated waters of the streams and portions of streams hereafter named shall be subject to appropriation by the fish and game commission of the state of Montana in such amounts only as may be necessary to maintain stream flows necessary for the preservation of fish and wildlife habitat. Such uses shall have a priority of right over other uses until the district court in which lies the major portions of such stream or streams shall determine that such waters are needed for a use determined by said court to be more beneficial to the public. The unappropriated water of other streams and rivers not named herein may be set aside in the future for appropriation by the fish and game commission upon consideration and recommendation of the water resources board, fish and game commission, state soil conservation committee, the state board of health and approval of the legislature.

(a) Big Spring creek in Fergus county from its mouth in T17N, R16E, Sec. 26 to the state fish hatchery in T14W, R19E, Sec. 5.

(b) Blackfoot river in Missoula and Powell counties from its mouth in T13N, R18W, Sec. 21 to the mouth of its North Fork in T14N, R12W, Sec. 9.

(c) Flathead river in Flathead county from its mouth in T27N, R20W, Sec. 34 to the Canadian border in T37N, R22W, Sec. 4 & 5, including the section commonly known as the North Fork of the Flathead river.

(d) Gallatin river in Gallatin county from its mouth in T2N, R2E, Sec. 9 to the junction of its East Fork in T2N, R3E, Sec. 27.

(e) Gallatin river in Gallatin county (commonly called the West Gallatin) from the Beck & Border ditch intake in T2S, R4E, Sec. 14 to where it leaves the Yellowstone Park boundary in T9S, R5E, Sec. 18.

(f) Madison river in Madison and Gallatin counties from its mouth in T2N,

R2E, Sec. 17 to Hebgen dam in T11S, R3E, Sec. 23.

(g) Missouri river in Lewis and Clark, Broadwater and Cascade counties from its junction with the Smith river in T19N, R2E, Sec. 9 to Toston dam in T4N, R3E, Sec. 7.

(h) Rock creek in Granite and Missoula counties from its mouth in T11N, R17W, Sec. 12 to the junction of its East and West Forks in T6N, R15W, Sec. 31.

(i) Smith river in Cascade and Meagher counties from the mouth of Hound creek in T17N, R3E, Sec. 20 to the Fort Logan bridge in T11N, R5E, Sec. 31.

(j) Yellowstone river in Stillwater, Sweetgrass and Park counties from the North-South Carbon-Stillwater county lines in T3S, R21E, Sec. 10 to where it leaves the Yellowstone Park boundary in NT9S, R8E, Sec. 23.

(k) Middle Fork Flathead river in Flathead county from its mouth in T31N, R19W, Sec. 7 to the mouth of Cox creek in T27N, R12W, (a nonsectioned township).

(l) South Fork Flathead river in Flathead and Powell counties from its mouth at Hungry Horse reservoir in T26W, R16W, Sec. (unknown), to its source at the junction of Danaher and Youngs creeks in T20W, R13W, Sec. 36.

89-801.1. Established rights of use unaffected. Nothing herein contained shall in any way affect or diminish any rights to the use of the waters of such streams or portions of streams heretofore established nor any legal or statutory rights given in connection with such established uses.

89-801.2. Notice of appropriation. The appropriation hereby authorized shall be made by filing a written notice of appropriation in the office of the county clerk and recorder of each county through which flows the river on which the appropriation is made, and by filing a copy of such notice with the director of the Montana water resources board. The notice shall state the quantity of water claimed, measured as provided in Title 89, R. C. M. 1947, the purpose for which it is claimed, the name of the appropriator, and the date of appropriation.

Appendix C

Montana Department of Fish, Wildlife and Parks

Summary of Murphy Right Claims Filed Under S.B. 76

<u>Stream/Reach /Priority Date</u>	<u>Period</u>	<u>Flow (cfs)</u>	<u>Volume (acre-ft)</u>
1) Big Spring Creek (31 miles total)			
Mouth-State Fish Hatchery (31 miles) 12/24/70	1/1 -12/31	110	79,617
2) Blackfoot River (52 miles total)			
Mouth-Clearwater River (34 miles) 1/6/71	9/1 - 3/31	650	273,257
	4/1 - 4/15	700	20,822
	4/16- 4/30	1,130	33,612
	5/1 - 6/30	2,000	241,926
	7/1 - 7/15	1,523	45,302
	7/16- 8/31	700	65,241
Clearwater R-NF of Blackfoot (18 miles) 1/7/71	9/1 - 3/31	360	151,343
	4/1 - 4/30	500	29,745
	5/1 - 5/15	837	24,897
	5/16- 6/15	1,750	107,578
	6/16- 6/30	1,423	42,327
	7/1 - 7/15	848	25,224
	7/16- 8/31	500	46,601
3) Flathead River (56 miles total)			
Flathead Lake-South Fork (46 miles) 12/22/70	8/1 - 4/15	3,500	1,790,649
	4/16- 4/30	6,650	197,804
	5/1 - 7/15	8,125	1,224,502
	7/16- 7/31	5,402	171,395
South Fork-Middle Fork (10 miles) 12/22/70	10/1 - 3/31	1,950	703,767
	4/1 - 4/15	2,100	62,465
	4/16- 4/30	3,597	106,993
	5/1 - 7/15	5,000	753,540
	7/16- 7/31	3,945	125,167
	8/1 - 9/30	2,100	254,022
4) Gallatin River (67 miles total)			
Mouth-E. Gallatin River (12 miles) 12/21/70	9/1 - 4/30	800	383,909
	5/1 - 5/15	947	28,169
	5/16- 5/31	1,278	40,548
	6/1 - 6/15	1,500	44,618
	6/16- 6/30	1,176	34,980
	7/1 - 8/31	850	104,504

Appendix C

Stream/Reach	Period	Flow (cfs)	Volume (acre-ft)
Beck and Border Ditch-YNP (55 miles) 12/21/70	7/16 - 5/15 5/16 - 7/15	400 800	241,133 96,770
5) Madison River (99 miles total)			
Mouth-Ennis Dam (40 miles) 12/22/70	1/1 - 5/31 6/1 - 6/30 7/1 - 7/15 7/16-12/31	1,200 1,500 1,423 1,300	359,320 89,235 42,327 435,665
Ennis Reservoir-West Fork (44 miles) 12/22/70	1/1 - 5/31 6/1 - 7/15 7/16-12/31	900 1,400 1,050	269,490 124,929 351,883
West Fork-Quake Lake (12 miles) 12/24/70	1/1 -12/31	500	361,902
Quake Lake-Hebgen Dam (3 miles) 12/24/70	8/1 - 3/31 4/1 - 7/31	500 500	240,935 12,096
6) Middle Fork of Flathead River (77 miles total)			
Mouth-Bear Creek (44 miles) 12/22/70	8/1 - 4/15 4/16 - 4/30 5/1 - 7/15 7/16 - 7/31	850 1,831 2,325 1,904	434,872 54,463 350,396 60,410
Bear Creek-Cox Creek (33 miles) 12/22/70	10/1 - 3/31 4/1 - 9/30	75 180	27,068 65,320
7) Missouri River (83 miles total)			
Smith River-Holter Dam (62 miles) 12/17/70	1/1 -12/31	3,000	2,171,385
Canyon Ferry Reservoir-Toston Dam (21 miles) 12/17/70	9/15-12/31 1/1 - 1/31 2/1 - 5/15 5/16 - 6/30 7/1 - 7/15 7/16 - 9/14	3,000 1,500 3,000 4,000 3,816 1,500	642,492 92,210 618,696 364,872 113,507 181,445

Appendix C

<u>Stream/Reach</u>	<u>Period</u>	<u>Flow (cfs)</u>	<u>Volume (acre-ft)</u>
8) North Fork of Flathead River (59 miles total)			
Middle Fork-Bowman Creek (34 miles) 12/22/70	10/1 - 3/31	987.5	356,395
	4/1 - 4/15	1,400	41,643
	4/16 - 4/30	1,766	52,530
	5/1 - 7/15	2,625	395,609
	7/16 - 7/31	2,041	64,757
	8/1 - 9/30	1,400	169,348
Bowman Creek-Border (25 miles) 12/22/70	10/1 - 3/31	625	225,566
	4/1 - 4/15	750	22,309
	4/16 - 4/30	1,100	32,720
	5/1 - 7/15	1,500	226,062
	7/16 - 7/31	1,279	40,580
	8/1 - 9/30	750	90,722
9) Rock Creek (56 miles total)			
Mouth-Ranch Creek (14 miles) 1/6/71	7/16 - 4/30	250	143,272
	5/1 - 5/15	454	13,504
	5/16 - 5/31	975	30,935
	6/1 - 6/15	926	27,544
	6/16 - 6/30	766	22,785
	7/1 - 7/15	382	11,363
Ranch Creek-Headwaters (42 miles) 1/7/71	7/16 - 4/30	150	85,963
	5/1 - 5/15	454	13,504
	5/16 - 5/31	975	30,935
	6/1 - 6/15	926	27,544
	6/16 - 6/30	766	22,785
	7/1 - 7/15	382	11,363
10) Smith River (72 miles total)			
Hound Creek-Cascade County Line (33 miles) 12/17/70	7/1 - 4/30	150	90,425
	5/1 - 5/15	372	11,065
	5/16 - 6/15	400	24,589
	6/16 - 6/30	398	11,839
Cascade County Line-Sheep Creek (24 miles) 12/22/70	9/1 - 3/31	125	52,550
	4/1 - 4/30	140	8,329
	5/1 - 6/30	150	18,144
	7/1 - 8/31	140	17,212
Sheep Creek-Ft. Logan Bridge (15 miles) 12/22/70	7/1 - 4/30	90	54,255
	5/1 - 6/30	150	18,144

Appendix C

<u>Stream/Reach</u>	<u>Period</u>	<u>Flow (cfs)</u>	<u>Volume (acre-ft)</u>
11) South Fork of Flathead River (59 miles total)			
Hungry Horse Reservoir-Powell/ Flathead County Line (43 miles)	10/1 - 3/31	600	216,544
	4/1 - 4/15	700	20,822
	4/16 - 4/30	1,180	35,099
	5/1 - 7/15	1,750	263,739
	7/16 - 7/31	943	29,920
	8/1 - 9/30	700	84,674
Powell/Flathead County Line- Headwaters (16 miles) 11/7/70	4/1 - 9/30	270	97,980
	10/1 - 3/31	100	36,091
12) Yellowstone River (155 miles total)			
Carbon/Stillwater County Line- Stillwater River (10 miles)	4/16-10/31	2,600	1,026,005
	11/1 - 4/15	1,500	493,769
Stillwater River-Boulder River (43 miles) 12/14/70	11/1 - 4/15	1,300	427,932
	4/16 - 4/30	1,800	53,541
	5/1 - 7/31	2,200	401,360
	8/1 - 10/31	1,800	328,384
Boulder River-Tom Miner Creek (85 miles) 12/14/70 + 12/23/70	11/1 - 4/15	1,200	395,014
	4/16-10/31	2,000	789,234
Tom Miner Creek-YNP (17 miles) 12/23/70	1/1 - 12/31	800	579,033

TOTAL CLAIMS = 106

APPENDIX D

WATER RIGHTS LISTINGS FOR ROCK CREEK DRAINAGE

(Source: Montana Department of Natural Resources and Conservation, Water Rights Bureau)*

- * Note: This list may not be accurate because at press time this basin had not been issued a final decree.

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Appendix D

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USES INDEX SORTED BY PRIORITY DATE

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Appendix D

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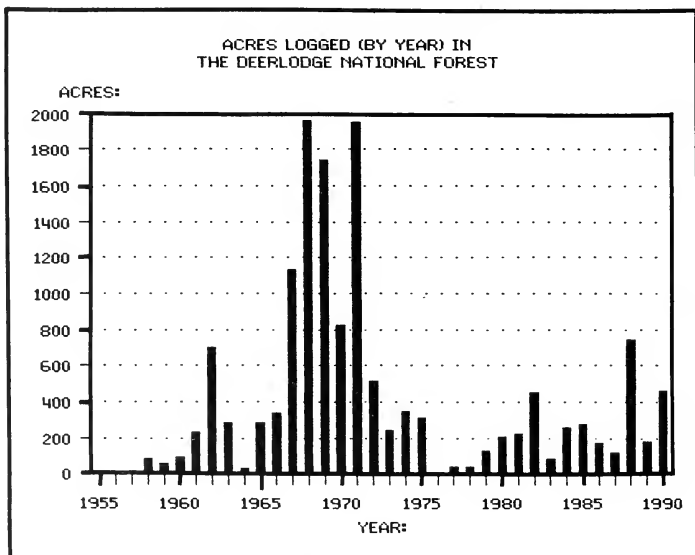
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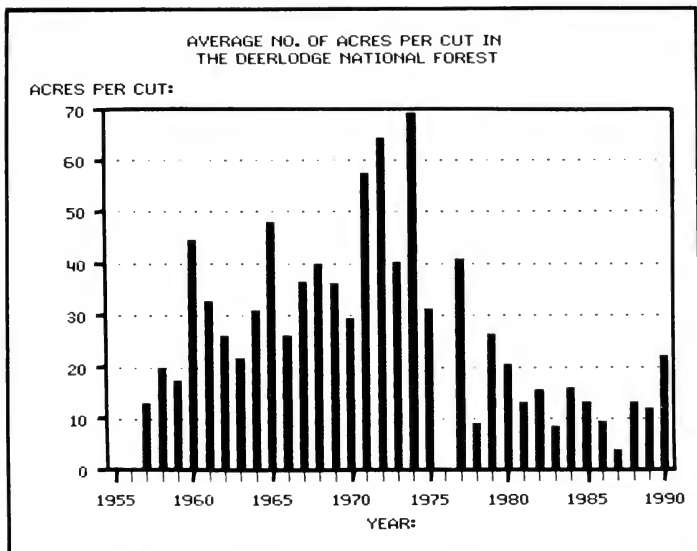
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APPENDIX E

TRENDS IN FOREST PRACTICES

1. Bar Graph, Timber Harvest by Acres per Year in the Deerlodge Forest.
2. Bar Graph, Average Acres per Cut by Year in the Deerlodge Forest.
3. Statistics, Timber Harvest Statistics for the Deerlodge Forest
4. Bar Graph, Timber Harvest by Acres per Year in the Lolo Forest.
5. Bar Graph, Average Acres per Cut by Year in the Lolo Forest.
6. Statistics, Timber Harvest in the Lolo Forest.

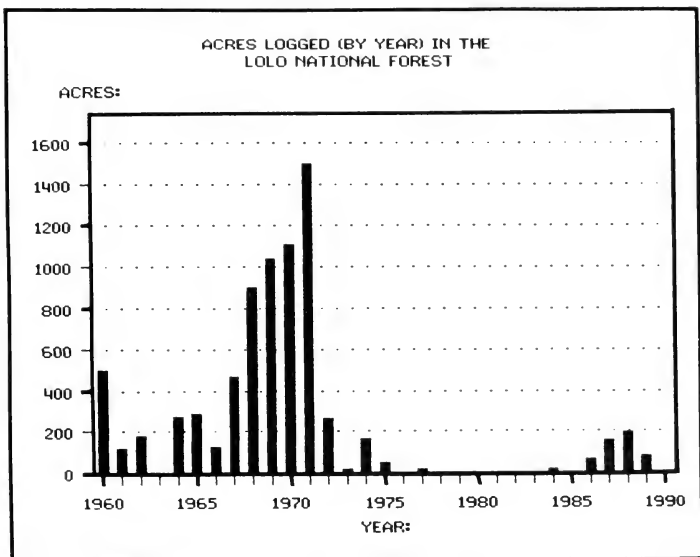


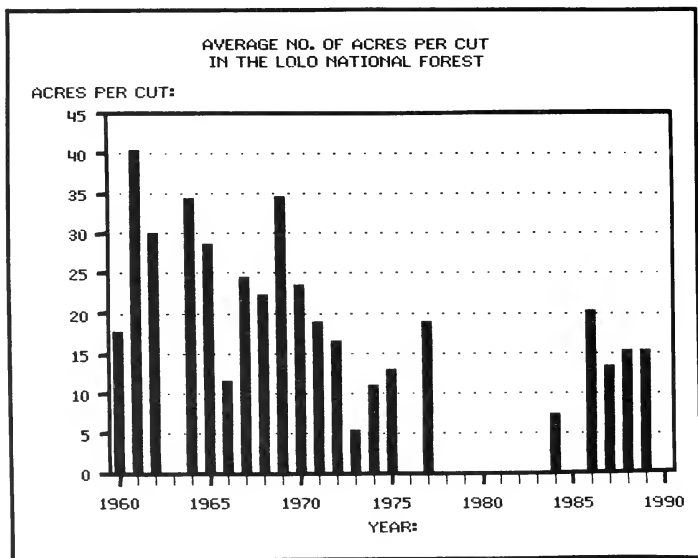


Appendix E

Timber Harvest Statistics for the
Deerlodge National Forest

Year	Total Acres	Avg. Acres Per Cut	Approx. Thousand Board-Feet
1948	6	3.0	48
1949	0	0.0	0
1950	5	5.0	40
1951	0	0.0	0
1952	0	0.0	0
1953	0	0.0	0
1954	35	35.0	280
1955	0	0.0	0
1956	0	0.0	0
1957	13	13.0	104
1958	80	20.0	640
1959	52	17.3	416
1960	89	44.5	712
1961	230	32.9	1840
1962	702	26.0	5616
1963	283	21.8	2264
1964	31	31.0	248
1965	288	48.0	2304
1966	337	25.9	2696
1967	1130	36.5	9040
1968	1964	40.1	15712
1969	1742	36.3	13936
1970	822	29.4	6576
1971	1953	57.4	15624
1972	515	64.4	4120
1973	242	40.3	1936
1974	346	69.2	2768
1975	312	31.2	2496
1976	0	0.0	0
1977	41	41.0	328
1978	36	9.0	288
1979	131	26.2	1048
1980	204	20.4	1632
1981	220	12.9	1760
1982	452	15.6	3616
1983	83	8.3	664
1984	256	16.0	2048
1985	273	13.0	2184
1986	171	9.5	1368
1987	114	3.8	912
1988	741	13.0	5928
1989	178	11.9	1424
1990	460	21.9	3680





Appendix E

Timber Harvest Statistics for the Lolo National Forest

Year	Total Acres	Avg. Acres Per Cut	Approx. Thousand Board-Feet
1960	498	17.8	3984
1961	121	40.3	968
1962	180	30.0	1440
1963	-----	-----	-----
1964	275	34.4	2200
1965	287	28.7	2296
1966	127	11.5	1016
1967	466	24.5	3728
1968	895	22.4	7160
1969	1040	34.7	8320
1970	1105	23.5	8840
1971	1502	19.0	12016
1972	265	16.6	2120
1973	16	5.3	128
1974	166	11.1	1328
1975	52	13.0	416
1976	-----	-----	-----
1977	19	19.0	152
1978	-----	-----	-----
1979	-----	-----	-----
1980	-----	-----	-----
1981	-----	-----	-----
1982	-----	-----	-----
1983	-----	-----	-----
1984	15	7.5	120
1985	-----	-----	-----
1986	61	20.3	488
1987	161	13.4	1288
1988	199	15.3	1592
1989	77	15.4	616
1990	-----	-----	-----



FOR THE SAKE OF THE CREEK

Land and Water Use in the Rock Creek Basin
& The Effort to Preserve the Resource

Prepared for the Rock Creek Advisory Council
by

The Montana Watercourse
Bozeman, Montana